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BULLETIN No. 130-65

HYDROLOGIC DATA: 1965

Volume V: SOUTHERN CALIFORNIA

Appendix D: SURFACE WATER QUALITY

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Administrator
The Resources Agency

EDMUND G. BROWN
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Director
Department of Water Resources

State of California

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ORGANIZATION OF BULLETIN NO. 130 SERIES

Volume I - NORTH COASTAL AREA

Volume II - NORTHEASTERN CALIFORNIA

Volume III - CENTRAL COASTAL AREA

Volume IV - SAN JOAQUIN VALLEY

Volume V - SOUTHERN CALIFORNIA

Each volume consists of the following:

TEXT and

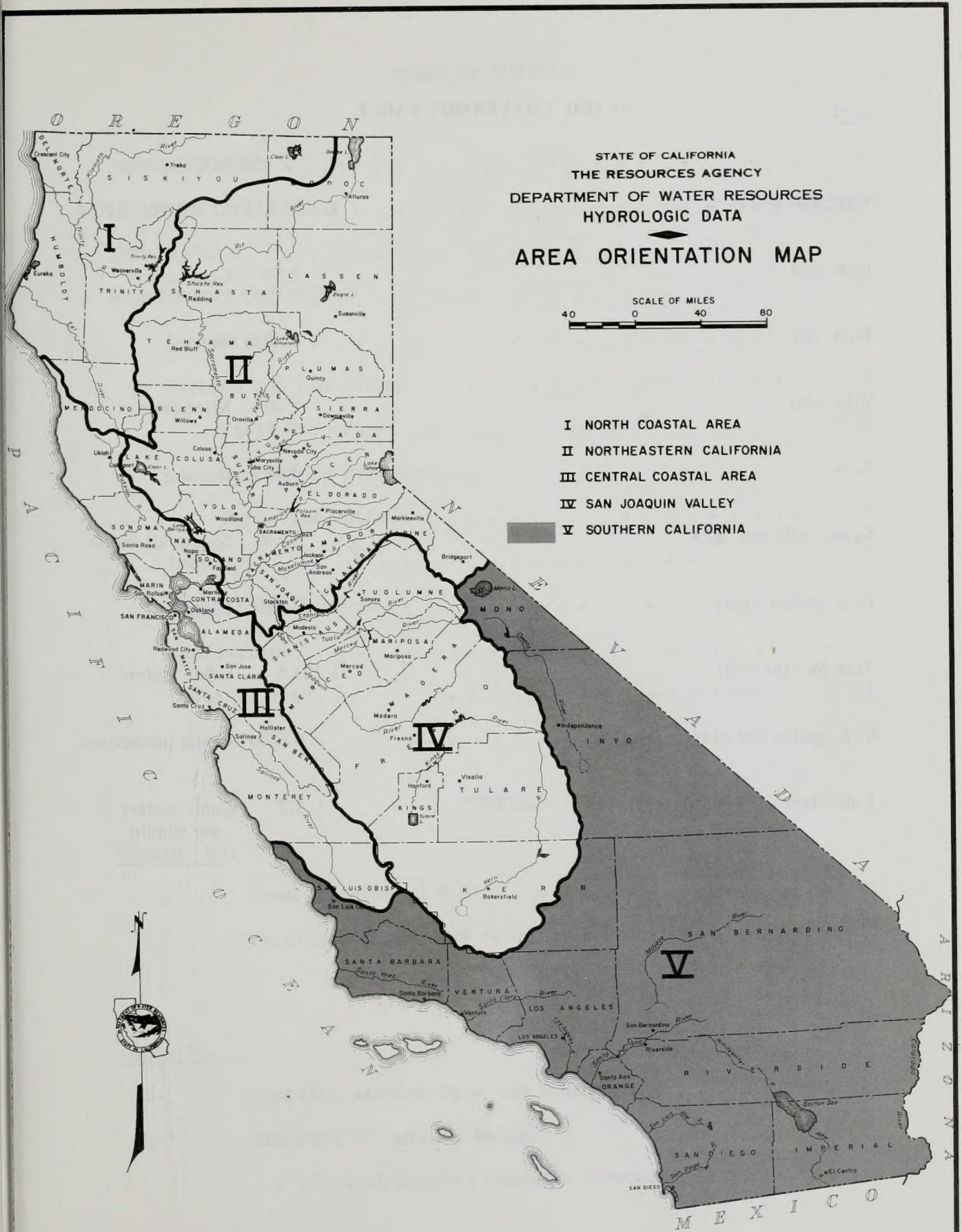
Appendix A - CLIMATE

Appendix B - SURFACE WATER FLOW

Appendix C - GROUND WATER MEASUREMENTS

Appendix D - SURFACE WATER QUALITY

Appendix E - GROUND WATER QUALITY


STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
HYDROLOGIC DATA
AREA ORIENTATION MAP
SCALE OF MILES
40 0 40 80
I NORTH COASTAL AREA
II NORTHEASTERN CALIFORNIA
III CENTRAL COASTAL AREA
IV SAN JOAQUIN VALLEY
V SOUTHERN CALIFORNIA
OREGON
NEVADA
ARIZONA
MEXICO
PACIFIC OCEAN
SISKIYOU
MODOC
TRINITY
SHASTA
LASSEN
HUMBOLDT
TEHAMA
PLUMAS
BUTTE
SIERRA
MENDOCINO
GLENN
LAKE
COLUSA
YUBA
NEVADA
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SAN JOAQUIN
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MARIPOSA
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FRESNO
MONTEREY
KINGS
TULARE
SAN LUIS OBISPO
KERN
SANTA BARBARA
VENTURA
LOS ANGELES
SAN BERNARDINO
ORANGE
RIVERSIDE
SAN DIEGO
IMPERIAL
Crescent City
Yreka
Alturas
Eureka
Weaverville
Redding
Susanville
Red Bluff
Quincy
Willows
Oroville
Downieville
Colusa
Nevada City
Marysville
Yuba City
Likiah
Auburn
Placerville
Woodland
Markleeville
Santa Rosa
Napa
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Sacramento
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San Andreas
Bridgeport
Mono L.
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Martinez
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Merced
Madera
Santa Cruz
Hollister
Salinas
Fresno
Independence
Visalia
Hanford
Tulare L.
San Luis Obispo
Bakersfield
Santa Barbara
Ventura
Los Angeles
San Bernardino
Riverside
Santa Ana
Salton Sea
San Diego
El Centro
Eel River
Klamath River
Trinity River
Shasta Res.
Eagle L.
Sacramento River
Feather River
Yuba River
American River
Folsom Res.
Lake Tahoe
Clear L.
Lake Berryessa
Cosumnes River
Mokelumne River
San Joaquin River
Stanislaus River
Tuolumne River
Merced River
Owens River
Kings River
Tulare L.
Kern River
Salinas River
Santa Ynez River
Santa Clara River
Los Angeles River
San Gabriel River
Santa Ana River
Mojave River
San Luis Rey River
San Diego River
Colorado River

METRIC CONVERSION TABLE

ENGLISH UNIT	EQUIVALENT METRIC UNIT	
Inch (in)	2.54	Centimeters
Foot (ft)	0.3048	Meter
Mile (mi)	1.609	Kilometers
Acre	0.405	Hectare
Square mile (sq. mi.)	2.590	Square kilometer
U. S. gallon (gal)	3.785	Liters
Acre foot (acre-ft)	1,233.5	Cubic meters
U. S. gallon per minute (gpm)	0.0631	Liters per second
Cubic feet per second (cfs)	1.7	Cubic meters per minute

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PLATE
(Bound at the back of this appendix)

Plate No.	
1	Location of Surface Water Quality Monitoring Program Stations, 1964-65.

ACKNOWLEDGMENTS

The extensive coverage of the surface water quality monitoring program in Southern California has been made possible through the cooperation of federal, state, and local agencies. The Department wishes to acknowledge the valuable assistance and cooperation received from the agencies listed below.

United States Geological Survey

California Department of Public Health,
Division of Laboratories.

The Metropolitan Water District of Southern California

Los Angeles County Health Department

Imperial County Health Department

City of Long Beach Health Department

City of Los Angeles Department of Water and Power

Fruit Growers Laboratory, Santa Paula

ABSTRACT

Appendix D to Volume V, Bulletin No. 130-65, contains data on the chemical (including trace elements and synthetic detergents), physical, radiological, and bacteriological characteristics of surface waters in Southern California for the 1964-65 water year. A foldout plate shows the locations of the 52 surface water sampling stations.

INTRODUCTION

Appendix D to Volume V of Bulletin No. 130-65 contains data on the chemical (including trace elements and synthetic detergents), physical, radiological, and bacteriological characteristics of the surface waters in the Southern California area (see Figure 1) for the 1964-65 water year. Samples were collected at 52 stations whose locations are shown on Plate 1. The stations are listed in Table D-1.

MEASUREMENT TECHNIQUES

Effective use of surface water quality data depends on the accuracy and availability of the data. To insure their accuracy, certain methods and procedures have been established. Coding systems have been developed to make the data readily available and usable when needed.

Discussion of the measurement techniques followed in the program include definitions of the terms used, field and laboratory procedures, reporting methods, accuracy of the reported results, the significant numbers retained, and limitations of the data.

Definitions

The following definitions will assist the reader in understanding the terms used in this appendix.

Water Year is the 12-month period from October 1 of any year through September 30 of the following year, and is designated by the calendar year in which it ends.

Cubic feet per second (cfs) is the unit rate of discharge of water. It is the number of cubic feet of water passing a given point in one second.

Standard Methods are the methods of analysis for substances in water adopted jointly by the American Public Health Association, American Water Works Association, and Water Pollution Control Federation. They represent the best current analytic procedures and are published as "Standard Methods for the Examination of Water and Waste Water". The current publication is the 12th edition, dated 1965.

Methods and Procedures

Because of the possible effect that season, time, and method of sampling may have on the analyses obtained, an explanation of the procedures established for surface water sample collection and their analyses and reporting is given below.

Field Procedures

For complete mineral and bacteriological analyses, water samples were collected monthly in the northern portion of the Southern California area, and bimonthly in the southern portion. The Colorado River stations above Yuma, Arizona, however, were sampled only twice a year. In addition, samples were collected at most stations for radiological analyses and at selected stations for trace element analyses in May and September. The samples collected for bacteriological examination were transported on ice to the laboratories as quickly as possible.

At the time surface samples were collected for laboratory examination, field determinations were made for water temperature, hydrogen ion concentration (pH), and for dissolved oxygen concentration by the modified Winkler method. A visual inspection was made of the stream or lake, and the physical conditions noted.

The surface water sampling stations have been established at or near stream-gaging stations wherever possible, so that accurate flow data can be obtained for the time of sample collection. Estimates of flow were made by the person doing the sampling at all stations. Where gages were absent, the estimated flows were reported.

Laboratory Procedures

Methods of mineral, bacterial, and radiological analyses used by the Department of Water Resources, Southern District, are generally those described in the American Public Health Association, American Water Works Association, and Water Pollution Control Federation publication "Standard Methods for the Examination of Water and Waste Water", 12th edition, 1965. In some cases, the methods described in the following publications also have been used:

U. S. Geological Survey, "Methods for Collection and Analyses of Water Samples", Water Supply Paper 1454, 1960.

U. S. Public Health Service, Taft Sanitary Engineering Center, "Taft Method Analytical Procedure, Alkyl Benzene Sulfonate Determination", 1964.

Reporting Methods

Individual chemical constituents of analyses in Table D-2 are reported as parts per million (ppm). Bacteriological analyses are reported as most probable number of coliform bacteria per milliliter (MPN/ml) of sample.

In addition to the chemical constituents reported in Table D-2, oil and grease, phenols, alkalinity, 5-day biochemical oxygen demand (BOD), dissolved oxygen (DO), and free carbon dioxide (CO_2) are reported in parts per million (ppm).

In mid-1965, the soap and detergent industry began its changeover of synthetic detergents (syndets) from alkyl benzene sulfonate (ABS) to linear alkylate sulfonate (LAS), a more readily biodegradable surfactant. Because the standard methylene blue test for surface active agents makes no distinction between ABS and LAS, reported results are given in Table D-2 as methylene blue active substance (MBAS) as ABS in parts per million beginning September 1965. When the existing ABS inventories are exhausted and the changeover by the detergent industries to LAS detergent is completed, the analyses of syndets will be reported as MBAS as LAS, or LAS.

Trace elements analyses are reported in Table D-3 as parts per billion. These analyses were performed by the United States Geological Survey Laboratory in Sacramento, California. Limitations in the precision of measurements by spectrographic analysis frequently require the reporting of results as less than or more than the amounts presented, as indicated in the footnotes accompanying the table.

Radiological analyses for surface water are reported in picocuries per liter (pc/l) in Table D-4. Water samples collected by the Department of Water Resources were analyzed for alpha and beta activity on both suspended and dissolved solids in the Sanitation and Radiation Laboratory, State Department of Public Health, Berkeley, California. Those samples collected by The Metropolitan Water District of Southern California and the Los Angeles Department of Water and Power were analyzed for gross alpha and beta and gross beta, respectively, in their own laboratories.

Accuracy

The water samples presented to the chemist contain unknown dissolved substances. Some of these substances may interfere with the

analyses of other constituents dissolved in the water. Standard methods of analysis minimize errors due to interference. Laboratory procedures identify and measure individual constituents in orderly sequence in such a way that any significant interference can be allowed for or eliminated.

Various tests are available to the chemist to assure precision of the results. Foremost among these is the comparison termed "Balance" of the sums of equivalents per million of cations and anions, which are exactly equal in ionic solutions. The analysis is complete only after this test meets the following requirements:

(1) Analyses of water having sums of anions less than 5.00 milliequivalents per liter shall not have a difference between total anions and total cations over four percent of the mean value.

(2) Analyses of water having sums of anions from 5.00 milliequivalents per liter to 10.00 milliequivalents per liter shall not have a difference between total anions and total cations of over three percent of the mean value.

(3) Analyses of water having sums of anions over 10.00 milliequivalents per liter shall not have a difference between total anions and total cations of over two percent of the mean value.

If the analysis does not meet this test, the constituents are rerun to verify the individual results, or until the reason for the discrepancy is ascertained.

Control of laboratory quality of analytical results is maintained by splitting selected authentic water samples, distributing these to the laboratories, and comparing the analytic reports. From time to time synthetic water reference samples, supplied by United States Public Health Service or California Department of Public Health, containing known proportions of selected constituents, are used as tests of precision of an analytical method. These latter serve as a test of laboratory accuracy as well.

Trace elements analyses are reported to be quantitatively accurate to within ten percent of the true value.

Radioactivity counts are measures of statistically random independent events. They are subject to environmental, instrumental, and procedural variations that must be estimated and accounted for to eliminate their influences on the reported results. The results are reported as the count plus or minus the counting error.

Bacteriological counts are made on paired samples of water using the multiple-tube fermentation technique. The accuracy of any single test will depend on the number of tubes used and on the historical bacteriological data of the sampling station.

Significant Numbers

Analytical numerical results follow the recommendations for reporting of "Standard Methods". In general, the number of digits retained in chemical analyses reflects the precision of a determination of one-half unit in the last digit. Accuracy (reproducibility) is estimated at plus or minus five percent at critical limits for most constituents.

Limitations

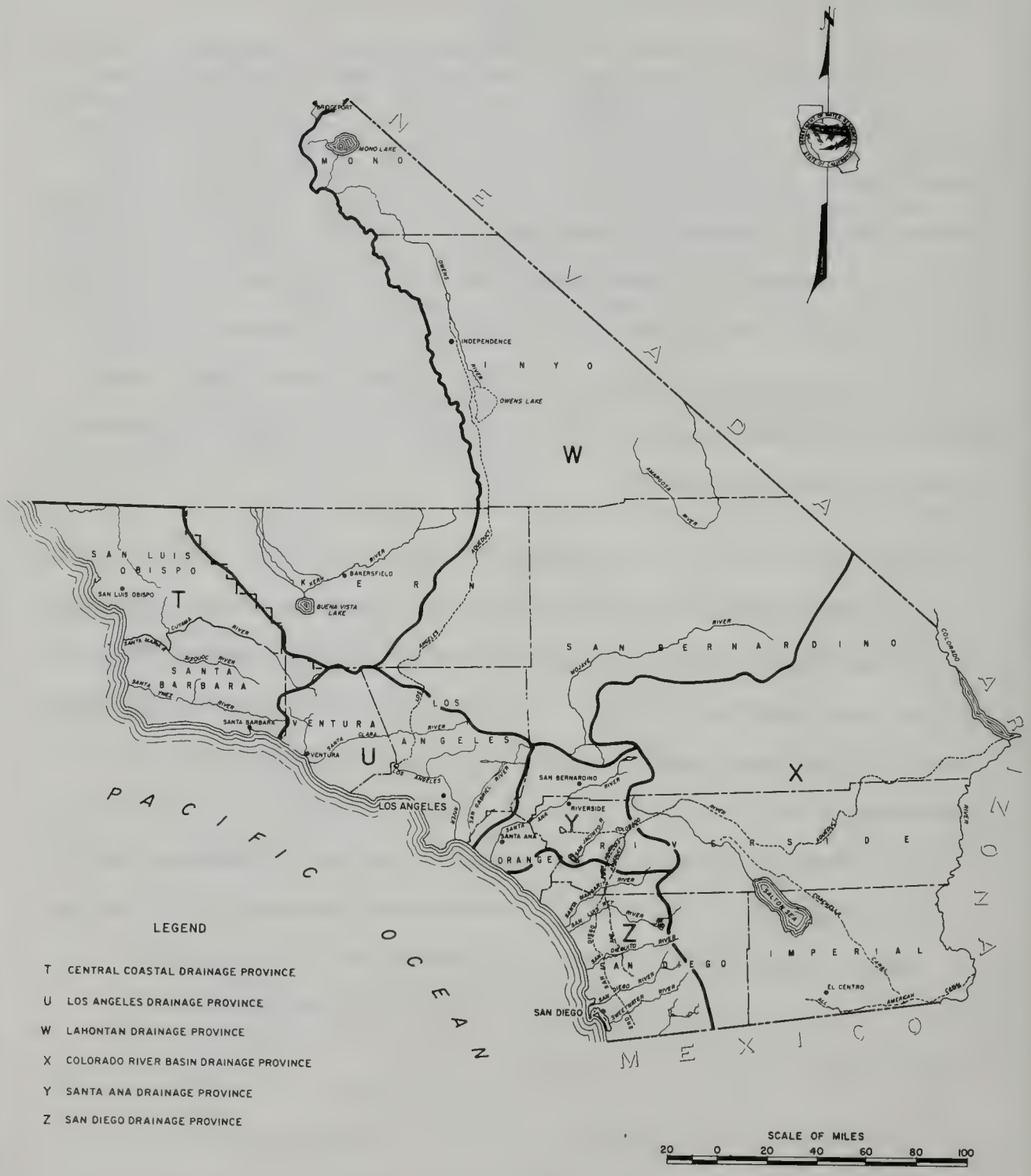
To obtain a representative sampling of the surface waters and of conditions in Southern California, a network of sampling stations was established to cover the streams, lakes, and reservoirs. However, the coverage and the frequency of sampling are limited by physical and economic factors. A compromise is made between the completeness desired in the water quality records and the funds available for the program.

All samples are given a complete mineral analysis and, where indications warrant, special analyses are made such as those for synthetic detergents and phosphates.

Coding

To facilitate the processing of basic hydrological data published in this appendix, numerical and letter codes are used to designate the surface water sampling stations. Figure 2 shows a listing and the location of drainage province boundaries, which are used in the data tables in this appendix.

The sampling stations are indexed according to location, with the name of the stream and a brief description of the sampling point. For ready reference, however, arbitrary numbers have been assigned to these stations. An example of a station number is Station No. 65c, San Diego River at Mission Gorge Road.



LOCATION OF DRAINAGE PROVINCE BOUNDARIES

DEPARTMENT OF WATER RESOURCES, SOUTHERN DISTRICT, 1966

DATA

Surface Water Quality

TABLE D-1

SAMPLING STATION DATA AND INDEX

WATER YEAR 1964 - 1965

Station	Station Number	Location [a]	Beginning of Record	Frequency of Sampling [b]	Sampled by [c]	Analysis on page
amo River						
At International Boundary	59	17S/16E-18	February 1951	B	DWR	116, 180
Near Calipatria	60	11S/13E-22	March 1951	B	DWR	118, 181
l American Canal						
Near Pilot Knob	56a	16S/21E-24	May 1953	B	DWR	114, 180
ino Creek						
Near Chino	86	2S/ 8W-36	April 1952	M	DWR	148, 183
lorado River						
Near Topock, Arizona	54	7N/24E- 8	April 1951	S	DWR	100, 180
At Colorado River Aqueduct Intake	56d	3N/27E-28	November 1953	M	MWD	102, 180
Aqueduct at La Verne	69	1S/ 9W- 6	April 1951	M composite	MWD	82, 175
Below Parker Dam	55	2N/27E-16	April 1951	S	DWR	106, 180
Near Blythe	56c	7S/23E- 2	May 1953	S	DWR	108, 180
At Yuma, Arizona	56	16S/23E-36	April 1951	B	DWR	110, 171, 180
Below Morelos Dam	56b	8S/24W-28 [d]	May 1953	B	DWR	112, 180
yama River						
Near Garey	44a	10N/33W-25	October 1958	M	DWR	14, 173
condido Creek						
Near Harmony Grove	63	12S/2W-30	March 1951	B	DWR	160, 172, 184
ke Elsinore						
At State Park	89	6S/ 5W- 1	February 1952	B	DWR	156, 183
s Angeles Aqueduct						
Near San Fernando	70	3N/15W-30	April 1951	M	LADWP	54, 175
s Angeles River						
At Figueroa Street	47	1S/13W-15	April 1951	M, S	LACHD-DWR	58, 171, 174
At Pacific Coast Highway	48	4S/13W-26	April 1951	M, S	LBHD-DWR	70, 171, 174
silija Creek						
Above Dam	45b	5N/23W-19	May 1953	M	DWR	26, 174
ssion Creek						
At Whittier Narrows	49a	2S/11W- 6	April 1951	M	DWR	170, 174
jave River						
At The Forks	67a	3N/ 3W-18	July 1957	M	DWR	86, 179
Near Victorville	67	6N/ 4W-29	March 1951	M	DWR	90, 179
y River						
At International Boundary	57	17S/14E-14	April 1951	B	DWR	120, 180
Near Westmorland	58	12S/13E-30	February 1951	B	DWR	122, 180
ru Creek						
Near Piru	46c	4N/18W-20	June 1957	M	DWR	38, 174
Hondo						
At Whittier Narrows	49	2S/11W- 6	April 1951	M	DWR	62, 171, 174
Above Spreading Grounds	49b	2S/12W-12	May 1963	M	DWR	66, 171, 175

Except as indicated below, location is referenced to San Bernardino Base and Meridian.
M - Monthly, B - Bimonthly, S- Semiannually.
DWR, Department of Water Resources; MWD, The Metropolitan Water District of Southern California; LACHD, Los Angeles County Health Department, LBHD, City of Long Beach Health Department; LADWP, City of Los Angeles Department of Water and Power.
Gila and Salt River Base and Meridian.

TABLE D-1

SAMPLING STATION DATA AND INDEX

WATER YEAR 1964 - 1965
(Continued)

Station	Station Number	Location [a]	Beginning of Record	Frequency of Sampling [b]	Sampled by [c]	Analysis on page
Salton Sea						
At Salton Sea State Park	68a	7S/10E- 2	March 1955	B	DWR	98, 191
San Diego River						
At Old Mission Dam	65	15S/ 2W-25	April 1951	B	DWR	162, 184
Near Mission Gorge Road	65c	15S/ 2W-35	July 1962	B	DWR	164, 172, 184
San Dieguito River						
Below San Pasqual Valley	64	13S/ 2W- 1	April 1951	B	DWR	170, 184
San Gabriel River						
At Azusa Powerhouse	50d	1N/10W-22	March 1957	M	DWR	74, 175
At Whittier Narrows	50	2S/11W- 5	April 1951	M	DWR	78, 171, 175
San Luis Rey River						
Near Pala	62	9S/ 2W-36	March 1951	B	DWR	170, 184
Santa Ana River						
Near Mentone	51b	1S/ 2W- 4	April 1951	M	DWR	124, 183
At Colton	51f	1S/ 4W-28	March 1964	M	DWR	136, 183
Near Arlington	51	2S/ 6W-25	January 1951	M	DWR	140, 171, 18[illegible]
Near Norco	51e	2S/ 7W-36	April 1951	M	DWR	144, 171, 18[illegible]
Below Prado Dam	51a	3S/ 7W-29	April 1951	M	DWR	152, 171, 18[illegible]
Santa Clara River						
At Los Angeles-Ventura County Line	46	4N/17W-30	April 1951	M	DWR	34, 171, 174
Near Santa Paula	46a	3N/21W-12	April 1951	M	DWR	46, 171, 174
Santa Margarita River						
Near Fallbrook	51c	9S/ 4W-12	February 1951	B	DWR	158, 184
Santa Paula Creek						
Near Santa Paula	46e	4N/21W-27	June 1957	M	DWR	50, 174
Santa Ynez River						
At Cachuma Reservoir	44b	6N/30W-19	April 1958	M	DWR	18, 173
Near Solvang	45a	6N/31W-22	April 1951	M	DWR	22, 171, 173
San Timoteo Creek						
Near Loma Linda	51g	1S/ 4W-22	March 1964	M	DWR	128, 183
Sespe Creek						
Near Fillmore	46d	4N/20W-12	June 1957	M	DWR	42, 174
Spring Valley Creek						
Near La Pressa	65b	17S/ 1W-17	March 1958	B	DWR	166, 184
Tia Juana River						
At International Boundary	66	19S/ 2W- 1	April 1951	B	DWR	168, 184
Ventura River						
Near Ventura	61	3N/23W- 8	May 1951	M	DWR	30, 171, 175
Warm Creek						
At Colton	50b	1S/ 4W-21	April 1951	M	DWR	132, 171, 183

TABLE D-1

SAMPLING STATION DATA AND INDEX

WATER YEAR 1964 - 1965
(Continued)

Station	Station Number	Location [a]	Beginning of Record	Frequency of Sampling [b]	Sampled by [c]	Analysis on page
Whitewater River						
Near Whitewater	68	3S/ 3E- 2	February 1951	B	DWR	94, 191
Near Mecca	68b	7S/ 9E-31	July 1957	B	DWR	96, 191

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

CENTRAL COASTAL DRAINAGE PROVINCE (T)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number					CUYAMA RIVER			44A			
NEAR GAREY											
10-1-64 1215	Dry no flow.										
11-2-64 1100	Dry no flow										
11-30-64 1250	Dry no flow.										
1-6-65 1420	Dry no flow.										
2-2-65 1200	Dry no flow										
3-1-65 1620	2.27 0.5 est	7.4	23 230				< 25		10.6	115	DWR
	New flow; much green algae										
4-5-65 1615	2.37 1 est	7.4	23 62				< 25		11.4	113	DWR
	Clear; small fish; much green algae										
5-3-65 1315	2.68 4 est	7.4	23 6.2				< 25		10.0	111	DWR
	Clear; small fish; brown and green algae on bottom.										

a. Tests made by agency reporting analysis. Tests on samples collected in pairs by Department of Water Resources were made by California Department of Public Health, Division of Laboratories.

b. Synthetic detergents. See page 4.

c. Analyses made by Department of Water Resources (DWR); City of Los Angeles Department of Water and Power (LADWP); City of Long Beach Health Department (LBHD); The Metropolitan Water District of Southern California (MWD); Fruit Growers Laboratory (FGL); California Department of Public Health (CDPH).

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL COASTAL DRAINAGE PROVINCE (T)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C Evap 105°C Computed	Total hardness as $CaCO_3$
Stream name and station number																	
NEAR GAREY				CUYAMA RIVER								44A					
10- 1-64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
11- 2-64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
11-30-64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
1- 6-65	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
2- 2-65	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
3- 1-65	67	7.8	2057	211	101	144	5	0	361	771	98	1	1.4	0.30	--	1680	943
				10.53	8.31	6.26	0.13		5.92	16.05	2.76	0.02					
				42	33	25	1		24	65	11					1510	
4- 5-65	59	7.8	1956	196	98	130	5	0	369	702	91	0	1.1	0.29	--	1564	893
				9.78	8.06	5.65	0.13		6.05	14.62	2.57						
				41	34	24	1		26	63	11					1405	
5- 3-65	70	7.5	1566	148	73	112	4	0	331	511	72	1	0.1	0.38	--	1140	670
				7.39	6.00	4.87	0.10		5.43	10.64	2.03	0.02					
				40	33	27	1		30	59	11					1084	

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

CENTRAL COASTAL DRAINAGE PROVINCE (T)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number				CUYAMA RIVER				44A			
NEAR GAREY											
6-1-65 1930	2.5 0.5 est. Clear; small fish.	7.5	62 62				<25		8.8	96	DWR
7-5-65 1815	Dry - no flow.										
8-2-65 1745	Dry - no flow.										
9-1-65 1700	Dry - no flow.										

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL COASTAL DRAINAGE PROVINCE (T)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactance value									Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C Evap 105°C Computed	Total hardness as $CaCO_3$
Stream name and station number				CUYAMA RIVER													
NEAR GAREY									44A								
6- 1-65	68	8.0	1814	166 8.28 39	90 7.40 35	130 5.65 26	4 0.10	0	349 5.72 27	634 13.20 62	85 2.40 11	0	1.0	0.27	--	1460 1282	785
7- 5-65	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
8- 2-65	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
9- 1-65	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

CENTRAL COASTAL DRAINAGE PROVINCE (T)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number AT CACHUMA RESERVOIR				SANTA YNEZ RIVER 44B							
10-1-64 1520	726.86	8.0	<0.45 0.60				<25		8.8	91	DWR
	Clear; water level low due to use for combatting forest fire.										
11-2-64 1330	725.75	8.0	2.3 1.3				<25		8.2	88	DWR
	Clear.										
11-30-64 1435	725.60	7.8	23 62				<25		7.0	69	DWR
	Clear.										
1-6-65 1145	725.37	7.6	0.60 2.3				<25		7.6	71	DWR
	Clear; raining.										
2-2-65 1410	725.14	7.9	0.60 <0.45				<25		10.6	105	DWR
	Clear.										
3-1-65 1850	724.67	7.8	2.3 2.3				<25		10.8	100	DWR
	Clear.										
4-5-65 1405	724.38	7.9	<0.45 0.6				<25		10.2	99	DWR
	Clear.										
5-3-65 1105	723.93	7.9	1.3 6.2				<25		9.9	103	DWR
	Clear; no odor; no color.										

TABLE 5-2

ANALYSES OF SURFACE WATER

CENTRAL COASTAL DRAINAGE PROVINCE (T)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million equivalents percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C / Evap 105°C / Computed	Total hardness as $CaCO_3$
Stream name and station number AT CACHUMA RESERVOIR						SANTA YNEZ RIVER					44B						
10- 1-64	69	7.6	818	73 3.64 40	42 3.45 38	43 1.87 21	4 0.10 1	0	212 3.47 38	248 5.16 57	17 0.48 5	1 0.02	0.7	0.44	10	560 543	355
11- 2-64	66	8.4	821	73 3.64 39	46 3.78 40	44 1.91 20	4 0.10 1	14 0.47 5	215 3.52 37	244 5.08 53	18 0.51 5	1 0.02	0.6	0.40	9	573 560	371
11-30-64	59	8.0	814	73 3.64 39	45 3.70 40	43 1.87 20	4 0.10 1	0	223 3.65 40	240 5.00 54	19 0.54 6	1 0.02	0.6	0.40	10	560 546	367
1- 6-65	55	7.8	815	81 4.04 44	38 3.13 34	42 1.83 20	4 0.10 1	0	215 3.52 39	242 5.04 56	17 0.48 5	1 0.02	0.6	0.40	--	550 532	359
2- 2-65	56	8.2	812	75 3.74 41	42 3.45 38	44 1.91 21	4 0.10 1	0	222 3.64 40	245 5.10 55	16 0.45 5	1 0.02	0.7	0.38	--	560 537	360
3- 1-65	54	8.2	830	77 3.84 42	41 3.37 37	42 1.83 20	4 0.10 1	0	217 3.56 39	238 4.96 55	19 0.54 6	1 0.02	0.5	0.39	--	563 529	361
4- 5-65	58	8.2	833	75 3.74 41	42 3.45 38	42 1.83 20	4 0.10 1	0	217 3.56 39	238 4.96 55	18 0.51 6	0	0.6	0.35	--	577 527	360
5- 3-65	64	7.8	813	75 3.74 41	42 3.45 38	40 1.74 19	4 0.10 1	0	218 3.57 40	232 4.83 54	17 0.48 5	0	0.6	0.38	--	538 518	360

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

CENTRAL COASTAL DRAINAGE PROVINCE (T)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number				SANTA YNEZ RIVER			44B				
AT CACHUMA RESERVOIR											
6-1-65 1750	725.16 Clear.	7.9	2.3 0.6				< 25		9.0	97	DWR
7-5-65 1635	723.54 Clear.	7.8	< 0.45 < 0.45				< 25		8.4	94	DWR
8-2-65 1600	722.02 Clear.	7.9	0.6 2.3				< 25		8.0	92	DWR
9-1-65 1510	720.02 Clear; large carp.	7.9	< 0.45 6.2				< 25		10.0	115	DWR

For this station, distance of water surface to top of gates equals 750.00 feet minus gage height.

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL COASTAL DRAINAGE PROVINCE (T)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C / Evap 105°C / Computed	Total hardness as $CaCO_3$
Stream name and station number AT CACHUMA RESERVOIR				SANTA YNEZ RIVER 44B													
	67	8.2	828	74	43	42	4	0	220	241	18	0	0.5	0.32	--	590	362
6- 1-65				3.69	3.54	1.83	0.10		3.61	5.02	0.51						
				40	39	20	1		39	55	6					531	
	70	8.2	831	75	43	43	4	0	227	247	17	1	0.6	0.38	--	620	364
7- 5-65				3.74	3.54	1.87	0.10		3.72	5.14	0.48	0.02					
				40	38	20	1		40	55	5					543	
	73	8.4	829	77	44	50	4	10	215	251	17	1	0.6	0.44	--	610	373
8- 2-65				3.84	3.62	2.17	0.10	0.33	3.52	5.23	0.48	0.02					
				39	37	22	1	3	37	55	5					561	
	73	8.5	852	76	46	44	4	14	203	246	19	1	0.5	0.41	--	574	379
9- 1-65				3.79	3.78	1.91	0.10	0.47	3.33	5.12	0.54	0.02					
				40	39	20	1	5	35	54	6					551	

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

CENTRAL COASTAL DRAINAGE PROVINCE (T)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number				SANTA YNEZ RIVER			45A				
NEAR SOLVANG											
10-1-64 1350	Dry - no flow.										
11-2-64 1155	Dry - no flow.										
11-30-64 1410	Dry - no flow.										
1-6-65 1245	3.48 15 est. Slightly turbid; some foam.	7.8	700 700+	0.4	0.00		100		11.6	110	DWR
2-2-65 1325	3.41 3 est.	8.0	< 4.5 23	0.08	0.02		< 25		18.0	186	DWR
3-1-65 1815	3.60 5.6 Clear; little foam.	7.4	62 700	0.02	0.01		< 25		9.8	107	DWR
4-5-65 1500	3.87 40 Clear; little foam.	7.9	6.0 62	0.1	0.0		< 25		10.0	94	DWR
5-3-65 1150	4.12 22 Clear.	7.7	-- --	0.04	0.08		< 25		8.8	98	DWR

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL COASTAL DRAINAGE PROVINCE (T)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C Evap 105°C Computed	Total hardness as $CaCO_3$
Stream name and station number																	
NEAR SOLVANG						SANTA YNEZ RIVER					45A						
10- 1-64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
11- 2-64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
11-30-64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
1- 6-65	56	7.8	796	91 4.54 53	24 1.97 23	45 1.96 23	2 0.05 1	0	233 3.82 45	163 3.39 40	48 1.35 16	1 0.02	0.6	0.34	--	520 489	326
2- 2-65	63	8.0	1205	100 4.99 35	79 6.50 45	66 2.87 20	3 0.08 1	0	388 6.36 44	316 6.58 46	51 1.44 10	1 0.02	0.5	0.36	--	850 808	575
3- 1-65	68	7.9	1177	95 4.74 35	73 6.00 44	63 2.74 20	3 0.08 1	0	348 5.70 42	302 6.29 47	51 1.44 11	1 0.02	0.6	0.36	--	814 760	537
4- 5-65	60	8.3	1053	102 5.09 43	50 4.11 35	58 2.52 21	2 0.05	14 0.47 4	295 4.84 42	232 4.83 41	54 1.52 13	0	0.7	0.36	--	728 658	460
5- 3-65	70	7.6	971	84 4.19 38	56 4.61 42	48 2.09 19	3 0.08 1	0	295 4.84 45	248 5.16 48	29 0.82 8	0	0.5	0.35	--	657 614	440

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

CENTRAL COASTAL DRAINAGE PROVINCE (T)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Synders[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number				SANTA YNEZ RIVER			45A				
NEAR SOLVANG											
6-1-65 1825	3.74 1.5 est. Clear.	8.0	2.3 23				< 25		10.2	115	DWR
7-5-65 1715	Dry - no flow.										
8-2-65 1640	Dry - no flow.										
9-1-65 1600	Dry - no flow.										

TABLE D-2

ANALYSES OF SURFACE WATER

CENTRAL COASTAL DRAINAGE PROVINCE (T)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactance value									Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C Evap 105°C Computed	Total hardness as $CaCO_3$
Stream name and station number																	
NEAR SOLVANG						SANTA YNEZ RIVER					45A						
6- 1-65	71	8.0	1063	77 3.84 32	68 5.59 47	56 2.43 20	2 0.05	0	310 5.08 43	277 5.77 48	39 1.10 9	0	0.5	0.33	--	754 672	472
7- 5-65	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
8- 2-65	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
9- 1-65	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

LOS ANGELES DRAINAGE PROVINCE (U)

Date Time Remarks	Gage ht.(ft) Flow (cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number				MATILIJA CREEK			45B				
ABOVE DAM											
10-2-64 1045	2.45 0.6 Clear.	7.6	6.2 2.3				<25		9.0	104	DWR
11-3-64 1235	2.39 2.5 Clear; five inch trout.	7.6	1.3 13				<25		10.4	120	DWR
12-1-64 1215	2.45 1.7 Clear; sulfide odor.	8.0	2.3 2.3				<25		9.0	95	DWR
1-7-65 1100	2.66 11 Clear.	7.7	23 2.3				<25		7.8	74	DWR
2-3-65 1015	2.59 6.8 Clear; much green algae on bottom.	7.8	6.2 2.3				<25		10.4	101	DWR
3-2-65 1250	2.55 5.1 Clear; much green algae on bottom.	7.8	0.60 0.60				<25		10.0	103	DWR
4-6-65 1250	3.90 29.8 Clear.	7.9	<0.45 1.3				<25		10.6	101	DWR
5-4-65 1110	2.80 19 Clear.	7.7	<0.45 <0.45				<25		11.2	114	DWR

TABLE D-2
ANALYSES OF SURFACE WATER

LOS ANGELES DRAINAGE PROVINCE (U)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactance value									Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C Evap 105°C Computed	Total hardness as $CaCO_3$
Stream name and station number				MATILIJA CREEK 45B													
ABOVE DAM																	
10- 2-64	74	7.9	1263	105 5.24 39	34 2.80 21	118 5.13 39	4 0.10 1	0	212 3.47 27	240 5.00 38	164 4.62 35	0	1.8	4.60	28	830 804	402
11- 3-64	73	7.8	1383	117 5.84 40	37 3.04 21	127 5.52 38	4 0.10 1	0	239 3.92 27	246 5.12 36	184 5.19 36	2 0.03	2.0	4.70	25	898 866	444
12- 1-64	65	8.0	1400	133 6.64 43	40 3.29 21	123 5.35 35	4 0.10 1	0	279 4.57 30	290 6.04 40	159 4.48 30	1 0.02	1.7	4.40	23	940 916	497
1- 7-65	56	7.9	1071	126 6.29 52	33 2.71 23	68 2.96 25	2 0.05	0	274 4.49 37	311 6.48 53	46 1.30 11	0	1.2	1.40	--	760 723	450
2- 3-65	57	8.0	1097	128 6.39 52	33 2.71 22	70 3.04 25	3 0.08 1	0	274 4.49 37	300 6.25 51	49 1.38 11	1 0.02	1.1	1.56	--	765 721	455
3- 2-65	63	8.1	1111	121 6.04 49	34 2.80 23	76 3.30 27	3 0.08 1	0	254 4.16 34	300 6.25 52	60 1.69 14	1 0.02	1.5	1.85	--	778 723	442
4- 6-65	56	8.2	967	122 6.09 56	33 2.71 25	46 2.00 18	2 0.05	0	253 4.15 39	284 5.91 55	21 0.59 6	1 0.02	1.0	0.50	--	698 635	440
5- 4-65	62	7.6	963	120 5.99 55	35 2.88 26	46 2.00 18	2 0.05	0	242 3.97 37	295 6.14 57	20 0.56 5	1 0.02	0.8	0.59	--	685 639	444

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

LOS ANGELES DRAINAGE PROVINCE (U)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number				MATILIJA CREEK			45B				
ABOVE DAM											
6-1-65 1405	2.64 9.2 Clear; sulfide odor.	7.6	0.6 2.0				<25		10.8	104	DWR
7-5-65 1230	2.50 3.4 Clear.	7.7	23 23				<25		9.2	108	DWR
8-3-65 0915	2.45 2.2 Clear; white algae.	7.3	6.2 23				<25		9.4	102	DWR
9-2-65 1245	2.42 1.4 Clear; sulfide odor; small fish.	7.9	23 2.3				<25		10.0	120	DWR

TABLE D-2
ANALYSES OF SURFACE WATER

LOS ANGELES DRAINAGE PROVINCE (U)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactance value									Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C Evap 105°C Computed	Total hardness as $CaCO_3$
Stream name and station number				MATILIJA CREEK 45B													
ABOVE DAM																	
6- 1-65	65	7.8	983	113 5.64 52	34 2.80 26	53 2.30 21	2 0.05	0	217 3.56 33	305 6.35 59	30 0.85 8	0	0.9	0.86	--	724 645	422
7- 5-65	75	7.7	1043	113 5.64 49	34 2.80 24	68 2.96 26	3 0.08 1	0	232 3.80 33	309 6.43 56	48 1.35 12	0	1.2	1.85	--	765 692	422
8- 3-65	68	7.9	1140	124 6.19 49	34 2.80 22	84 3.65 29	4 0.10 1	0	271 4.44 35	300 6.25 49	70 1.97 16	0	1.6	2.20	--	825 753	450
9- 2-65	77	7.8	1183	114 5.69 45	34 2.80 22	91 3.96 32	4 0.10 1	0	239 3.92 32	279 5.81 47	95 2.68 22	0	1.4	2.60	--	795 739	425

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

LOS ANGELES DRAINAGE PROVINCE (U)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number											
NEAR VENTURA			VENTURA RIVER 61								
10-2-64 0935	5.96 Ponded. Clear; floating green algae.	7.3	6.2 13				< 25		8.4	85	DWR
11-3-64 1145	6.07 Ponded. Clear.	7.2	6.2 240				< 25		6.2	59	DWR
12-1-64 1130	6.10 Ponded Clear; green algae on bottom.	7.3	62 23				< 25		7.8	68	DWR
1-9-65 1015	6.59 2.1 Clear; just after rain.	7.6	23 230				< 25		8.0	76	DWR
2-3-65 0930	6.43 0.3 Clear.	7.2	62 5				< 25		9.6	88	DWR
3-2-65 1200	6.39 0.45 Clear.	7.4	20 23				< 25		9.2	90	DWR
4-6-65 1105	7.13 9.5 Turbid; raining.	7.3	700 13				320		7.4	72	DWR
5-4-65 0940	-- 2.7 Clear; fish and green algae.	7.3	6 62				< 25		9.8	100	DWR

TABLE D-2

ANALYSES OF SURFACE WATER

LOS ANGELES DRAINAGE PROVINCE (U)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C / Evap 105°C / Computed	Total hardness as $CaCO_3$
Stream name and station number																	
NEAR VENTURA						VENTURA RIVER					61						
10- 2-64	61	7.6	1326	79 3.94 26	96 7.90 51	80 3.48 23	3 0.08 1	0	365 5.98 40	309 6.43 43	94 2.65 18	3 0.05	0.9	0.72	28	950 873	592
11- 3-64	56	7.6	1372	170 8.48 53	47 3.87 24	80 3.48 22	3 0.08 1	0	380 6.23 40	323 6.72 43	92 2.59 17	1 0.02	0.7	0.64	27	962 931	618
12- 1-64	49	7.7	1452	179 8.93 54	46 3.78 23	90 3.91 23	2 0.05	0	373 6.11 37	346 7.20 44	110 3.10 19	1 0.02	0.7	0.63	21	1010 980	636
1- 9-65	56	7.8	1220	156 7.78 56	38 3.13 23	66 2.87 21	3 0.08 1	0	318 5.21 38	312 6.50 47	70 1.97 14	13 0.21 2	0.7	0.50	--	860 816	546
2- 3-65	53	7.5	1340	171 8.53 56	42 3.45 23	74 3.22 21	2 0.05	0	352 5.77 38	329 6.85 46	83 2.34 16	5 0.08 1	0.7	0.56	--	955 880	599
3- 2-65	58	7.7	1374	172 8.58 55	43 3.54 23	80 3.48 22	2 0.05	0	358 5.87 38	347 7.22 47	83 2.34 15	2 0.03	0.8	0.59	--	980 906	606
4- 6-65	58	7.8	1130	138 6.89 54	38 3.13 25	60 2.61 21	3 0.08 1	0	298 4.88 39	284 5.91 47	56 1.58 13	10 0.16 1	0.8	0.67	--	781 737	501
5- 4-65	62	7.8	1200	146 7.29 53	41 3.37 25	68 2.96 22	2 0.05	0	329 5.39 39	306 6.37 47	61 1.72 13	11 0.18 1	0.9	0.58	--	870 798	533

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

LOS ANGELES DRAINAGE PROVINCE (U)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number			VENTURA RIVER 61								
NEAR VENTURA											
6-1-65 1320	6.80 2.8 Clear.	7.4	<4.5 23				<25		9.0	95	DWR
7-5-65 1325	6.76 1.4 Clear; much green algae.	7.4	5 6.2				<25		8.6	95	DWR
8-3-65 1030	6.54 0.2 Clear.	7.4	62 6.2				<25		7.9	86	DWR
9-2-65 1200	6.32 0.33 Clear.	75	62 62				<25		8.2	90	DWR

TABLE D-2
ANALYSES OF SURFACE WATER

LOS ANGELES DRAINAGE PROVINCE (U)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C / Evap 105°C / Computed	Total hardness as $CaCO_3$
Stream name and station number																	
NEAR VENTURA — VENTURA RIVER — 61																	
6- 1-65	65	7.9	1205	150 7.49 55	40 3.29 24	65 2.83 21	2 0.05	0	330 5.41 40	304 6.33 47	60 1.69 12	9 0.15 1	0.6	0.50	--	867 793	539
7- 5-65	69	7.8	1236	153 7.63 54	40 3.29 23	74 3.22 23	3 0.08 1	0	339 5.56 39	325 6.77 48	63 1.78 13	6 0.10 1	0.7	0.57	--	930 832	546
8- 3-65	68	7.6	1264	152 7.58 53	41 3.37 24	76 3.30 23	3 0.08 1	0	359 5.88 41	316 6.58 46	68 1.92 13	3 0.05	0.7	0.70	--	915 837	548
9- 2-65	68	7.7	1278	154 7.68 53	42 3.45 24	77 3.35 23	3 0.08 1	0	371 6.08 42	298 6.20 43	73 2.06 14	3 0.05	0.6	0.63	--	895 834	557

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

LOS ANGELES DRAINAGE PROVINCE (U)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number SANTA CLARA RIVER 46											
AT LOS ANGELES - VENTURA COUNTY LINE											
10-2-64 1500	3.36 0.2 est. Clear; dry at gage.	9.4	2.3 0.6 Sampled upstream.				< 25		9.4	113	DWR
11-3-64 1615	Dry 0.20 Clear; dry at gage.	7.8	< 0.45 < 0.45 Sampled upstream.				< 25		8.2	90	DWR
12-1-64 1520	3.60 0.70 Clear.	7.8	62 0.6				< 25		9.0	93	DWR
1-7-65 1445	3.63 1.0 Clear.	7.7	2.3 0.6				< 25		11.2	104	DWR
2-3-65 1415	3.61 1.0 Clear.	7.6	< 0.45 6.2				< 25		10.2	124	DWR
3-2-65 1700	3.60 0.9 Clear.	7.5	13 6.2				< 25		8.8	87	DWR
4-6-65 1610	3.81 2.5 Clear; little foam; small fish.	--	23 6.2				< 25		10.4	105	DWR
5-4-65 1430	3.61 1.28 Clear	7.4	2.1 23				< 25		8.4	106	DWR

TABLE D-2
ANALYSES OF SURFACE WATER

LOS ANGELES DRAINAGE PROVINCE (U)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million / equivalents per million / percent reactance value									Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C / Evap 105°C / Computed	Total hardness as $CaCO_3$
Stream name and station number																	
AT L. A. - VENTURA CO. L.						SANTA CLARA RIVER					46						
10- 2-64	78	7.9	4975	272 13.57 20	259 21.30 32	735 31.96 48	9 0.23	0	287 4.70 7	2500 52.05 78	358 10.10 15	1 0.02	2.1	2.30	13	4580 4293	1745
11- 3-64	68	8.1	4207	230 11.48 21	206 16.94 31	580 25.22 47	8 0.20	0	269 4.41 8	1967 40.95 77	262 7.39 14	16 0.26	1.7	1.95	16	3619 3421	1422
12- 1-64	63	8.1	4065	262 13.07 24	195 16.04 30	563 24.48 46	7 0.18	0	346 5.67 11	1945 40.49 76	240 6.77 13	1 0.02	1.6	1.80	11	3550 3398	1457
1- 7-65	54	7.9	3717	276 13.77 28	168 13.82 28	480 20.87 43	7 0.18	0	378 6.20 13	1760 36.64 75	210 5.92 12	2 0.03	1.7	1.40	--	3240 3092	1381
2- 3-65	63	8.0	3676	249 12.43 26	175 14.39 30	480 20.87 44	7 0.18	0	365 5.98 13	1727 35.96 75	205 5.78 12	1 0.02	1.5	1.50	--	3200 3026	1342
3- 2-65	59	7.9	3846	265 13.22 28	175 14.39 30	465 20.22 42	7 0.18	0	339 5.56 12	1748 36.39 76	216 6.09 13	2 0.03	1.7	1.36	--	3352 3048	1382
4- 6-65	61	7.8	3761	300 14.97 31	165 13.57 29	432 18.78 39	9 0.23	0	481 7.88 17	1647 34.29 72	186 5.25 11	0	1.6	1.20	--	3185 2978	1428
5- 4-65	82	7.5	3662	257 12.82 28	168 13.82 30	436 18.96 41	9 0.23 1	0	400 6.56 14	1607 33.46 73	202 5.70 12	0	0.8	1.30	--	3065 2878	1333

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

LOS ANGELES DRAINAGE PROVINCE (U)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number					SANTA CLARA RIVER		46				
AT LOS ANGELES - VENTURA COUNTY LINE											
6-2-65 0530	3.65 0.9 Clear.	7.6	0.6 0.6				< 25		9.0	86	DWR
7-6-65 1200	3.45 0.10 Low flow.	7.4	24 24				< 25		7.2	88	DWR
8-3-65 1245	3.43 0.05 Clear; low flow; much algae.	7.2	130 240				< 25		11.6	141	DWR
9-2-65 1750	3.32 0.05 Clear; much green algae.	7.6	130 620				< 25		7.8	92	DWR

TABLE D-2
ANALYSES OF SURFACE WATER

LOS ANGELES DRAINAGE PROVINCE (U)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C	TDS Evap 105°C	TDS Computed	Total hardness as $CaCO_3$
Stream name and station number																			
AT L. A. - VENTURA CO. L.				SANTA CLARA RIVER 46															
6- 2-65	59	7.6	3846	289	171	470	8	0	466	1707	210	3	1.6	0.68	--			3265	1425
				14.42	14.06	20.44	0.20		7.64	35.54	5.92	0.05							
				29	29	42			16	72	12							3089	
7- 6-65	79	7.5	5000	366	229	636	10	0	445	2359	286	32	1.0	1.65	--			4442	1856
				18.26	18.83	27.65	0.26		7.29	49.11	8.07	0.52							
				28	29	43			11	76	12	1						4139	
8- 3-65	79	7.4	4785	389	214	636	11	0	505	2344	238	42	1.4	1.80	--			4405	1852
				19.41	17.60	27.65	0.28		8.28	48.80	6.71	0.68							
				30	27	43			13	76	10	1						4126	
9- 2-65	76	7.8	6452	335	332	990	11	0	403	3237	460	5	1.1	3.00	--			5850	2203
				16.72	27.30	43.05	0.28		6.61	67.39	12.97	0.08							
				19	31	49			8	77	15							5572	

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

LOS ANGELES DRAINAGE PROVINCE (U)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number											
NEAR PIRU			PIRU CREEK 46C								
10-2-64 1415	--- 2 est. Clear; flow had been higher.	7.8	240 62				<25		8.6	95	DWR
11-3-64 1600	--- 2 est. Clear.	7.8	6 62				<25		8.4	88	DWR
12-1-64 1450	--- 2 est. Clear.	7.8	6.2 62				<25		8.2	81	DWR
1-7-65 1420	--- 9 est. Clear.	8.0	5.0 6.2	0.00	0.02		<25		11.8	111	DWR
2-3-65 1345	--- 4 est. Clear; little debris on surface.	7.8	23 13				<25		9.6	94	DWR
3-2-65 1645	--- 1 est. Clear.	7.8	23 6.2				<25		9.0	89	DWR
4-6-65 1540	--- 2 est. Yellowish tinge to stream; some foam.	7.9	5.0 6.2	0.06	0.03		<25		10.4	105	DWR
5-4-65 1400	--- 50 est. Clear; high flow.	7.9	<0.45 5				<25		8.8	92	DWR

TABLE D-2
ANALYSES OF SURFACE WATER

LOS ANGELES DRAINAGE PROVINCE (U)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C	TDS Evap 105°C	TDS Computed	Total hardness as $CaCO_3$
Stream name and station number: PIRU CREEK 46C																			
NEAR PIRU																			
10- 2-64	69	7.8	1828	179 8.93 38	94 7.73 33	147 6.39 27	8 0.20 1	0	300 4.92 22	773 16.09 72	52 1.47 7	0	1.8	1.90	27	1500		1431	834
11- 3-64	64	8.0	1902	189 9.43 40	93 7.65 32	147 6.39 27	8 0.20 1	0	292 4.79 21	803 16.72 72	56 1.58 7	1 0.02	1.7	1.85	26	1562		1470	855
12- 1-64	59	8.1	1805	181 9.03 40	88 7.24 32	140 6.09 27	7 0.18 1	0	298 4.88 22	761 15.84 71	56 1.58 7	0	1.7	1.70	20	1460		1403	814
1- 7-65	55	8.0	1761	172 8.58 41	77 6.33 30	140 6.09 29	7 0.18 1	0	264 4.33 20	753 15.68 73	52 1.47 7	1 0.02	1.8	1.70	--	1390		1335	746
2- 3-65	58	8.2	1821	185 9.23 42	78 6.41 29	144 6.26 28	7 0.18 1	0	306 5.02 23	730 15.20 70	53 1.49 7	1 0.02	1.4	1.90	--	1464		1352	783
3- 2-65	59	8.2	1924	199 9.93 42	87 7.15 30	150 6.52 27	7 0.18 1	0	310 5.08 22	805 16.76 71	60 1.69 7	1 0.02	1.7	1.60	--	1587		1465	855
4- 6-65	61	8.0	2361	218 10.88 38	107 8.80 31	204 8.87 31	7 0.18 1	0	332 5.44 19	1007 20.97 74	69 1.95 7	0	1.6	1.75	--	2000		1779	985
5- 4-65	64	7.6	1313	128 6.39 43	55 4.52 30	90 3.91 26	5 0.13 1	0	210 3.44 23	494 10.29 70	36 1.02 7	1 0.02	1.3	1.24	--	1010		915	546

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

LOS ANGELES DRAINAGE PROVINCE (U)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number											
NEAR PIRU			PIRU CREEK				46C				
6-2-65 0500	--- 7 est. Clear.	7.9	62 6.2				<25		9.6	94	DWR
7-6-65 1145	--- 3.5 est. Clear; little foam.	7.6	24 24	0.0	0.04		<25		10.2	120	DWR
8-3-65 1225	--- 2 est. Clear.	7.8	240 700				<25		8.8	106	DWR
9-2-65 1645	--- 0.3 est. Clear.	7.8	28 700				<25		9.0	113	DWR

TABLE D-2
ANALYSES OF SURFACE WATER

LOS ANGELES DRAINAGE PROVINCE (U)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactance value									Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C Evap 105°C Computed	Total hardness as $CaCO_3$
Stream name and station number				PIRU CREEK													
NEAR PIRU				46C													
	58	7.9	1664	165	73	127	6	0	290	668	42	0	1.6	1.70	--	1325	712
6- 2-65				8.23	6.00	5.52	0.15		4.75	13.91	1.18						
				41	30	28	1		24	70	6					1227	
	75	7.8	1783	171	80	139	7	0	259	733	49	1	1.3	1.85	--	1450	756
7- 6-65				8.53	6.58	6.04	0.18		4.25	15.26	1.38	0.02					
				40	31	28	1		20	73	7					1310	
	78	7.8	1712	136	82	157	8	0	224	716	60	1	1.7	2.00	--	1420	677
8- 3-65				6.79	6.74	6.83	0.20		3.67	14.91	1.69	0.02					
				33	33	33	1		18	73	8					1274	
	82	8.4	1760	131	84	157	7	9	149	756	58	1	1.5	2.70	--	1435	673
9- 2-65				6.54	6.91	6.83	0.18	0.30	2.44	15.74	1.64	0.02					
				32	34	33	1	1	12	78	8					1280	

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

LOS ANGELES DRAINAGE PROVINCE (U)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number				SESPE CREEK			46D				
NEAR FILLMORE											
10-2-64 1330	1.96 0.1 Clear; many insects	7.9	13 1.3				< 25		8.6	101	DWR
11-3-64 1545	2.04 0.3 Clear.	7.9	2 2.3				< 25		8.4	87	DWR
12-1-64 1415	2.18 0.3 Clear; oil slick on surface.	7.6	6.2 < 0.45				< 25		9.2	93	DWR
12-15-64 1140	2.15 0.15	--	-- --				--		--	--	FGL
1-7-65 1320	3.30 44 Slightly turbid.	7.9	1.3 6.2				50		9.2	85	DWR
2-3-65 1245	2.94 15 Clear.	7.8	2.3 2.3				< 25		10.0	96	DWR
3-2-65 1615	2.56 1.6 Clear.	7.8	0.6 < 0.45				< 25		9.4	97	DWR
4-5-65 1505	3.70 113 Turbid.	8.1	6.2 6.2				160		10.2	93	DWR

LOS ANGELES DRAINAGE PROVINCE (U)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C / Evap 105°C / Computed	Total hardness as $CaCO_3$
Stream name and station number																	
NEAR FILLMORE						SESPE CREEK 46D											
10- 2-64	76	7.6	1383	118 5.89 39	39 3.21 21	135 5.87 39	4 0.10 1	0	140 2.29 16	411 8.56 58	135 3.81 26	1 0.02	1.6	2.50	9	950 925	455
11- 3-64	69	8.1	1502	126 6.29 39	40 3.29 20	148 6.44 40	4 0.10 1	0	142 2.33 15	415 8.64 55	166 4.68 30	2 0.03	1.6	2.70	9	1011 984	479
12- 1-64	61	8.0	1582	156 7.78 43	45 3.70 21	147 6.39 36	4 0.10 1	0	259 4.25 24	440 9.16 52	155 4.37 25	0	1.8	2.30	14	1120 1092	574
12-15-64	--	7.9	1877	189 9.43	48 3.95	158 6.87	--	--	291 4.77	562 11.70	146 4.12	--	1.3	2.72	--	1342	670
1- 7-65	54	8.0	1085	116 5.79 48	30 2.47 21	84 3.65 30	3 0.08 1	0	228 3.74 31	326 6.79 56	53 1.49 12	1 0.02	1.9	1.60	--	750 729	413
2- 3-65	57	7.9	1138	112 5.59 45	30 2.47 20	96 4.17 34	3 0.08 1	0	223 3.65 30	315 6.56 55	64 1.80 15	1 0.02	1.8	2.05	--	772 734	403
3- 2-65	63	8.2	1295	135 6.74 48	34 2.80 20	104 4.52 32	4 0.10 1	0	231 3.79 27	396 8.24 59	72 2.03 14	0	2.8	1.90	--	910 863	477
4- 5-65	53	8.2	846	95 4.74 52	27 2.22 24	50 2.17 24	2 0.05 1	0	200 3.28 36	244 5.08 56	25 0.71 8	0	1.1	0.60	--	597 543	348

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

LOS ANGELES DRAINAGE PROVINCE (U)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number SESPE CREEK 46D											
NEAR FILLMORE											
5-4-65 1315	3.40 48 Clear.	7.6	2.3 0.46				< 25		9.0	96	DWR
6-2-65 0415	2.93 10.0 Clear.	7.8	2.3 23				< 25		10.6	104	DWR
7-6-65 1110	2.42 6 Clear; much green algae.	7.5	1.3 1.3				< 25		8.0	93	DWR
8-3-65 1145	2.38 2 Clear; many small fish.	7.4	0.6 5.0				< 25		7.6	87	DWR
9-2-65 1555	2.37 0.2 Clear.	7.6	2.3 62				< 25		8.8	111	DWR

ANALYSES OF SURFACE WATER

LOS ANGELES DRAINAGE PROVINCE (U)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C / Evap 105°C / Computed	Total hardness as $CaCO_3$
Stream name and station number																	
NEAR FILLMORE						SESPE CREEK					46D						
5- 4-65	66	7.6	925	101 5.04 50	30 2.47 25	56 2.43 24	2 0.05 1	0	190 3.11 32	285 5.93 60	27 0.76 8	1 0.02	1.6	0.88	--	620 598	376
6- 2-65	59	8.0	960	88 4.39 43	29 2.38 23	78 3.39 33	3 0.08 1	0	181 2.97 29	285 5.93 58	45 1.27 12	0	1.8	1.40	--	640 620	339
7- 6-65	74	8.0	1437	163 8.13 49	43 3.54 21	112 4.87 29	5 0.13 1	0	227 3.72 22	535 11.14 67	61 1.72 10	0	1.6	1.55	--	1100 1034	584
8- 3-65	76	7.8	1453	157 7.83 47	44 3.62 22	120 5.22 31	5 0.13 1	0	212 3.47 21	531 11.06 67	74 2.09 13	0	1.6	1.75	--	1110 1039	573
9- 2-65	82	7.8	1292	117 5.84 43	34 2.80 20	114 4.96 36	4 0.10 1	0	161 2.64 20	397 8.27 61	92 2.59 19	1 0.02	1.4	1.80	--	900 841	432

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

LOS ANGELES DRAINAGE PROVINCE (U)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number SANTA CLARA RIVER 46A											
NEAR SANTA PAULA											
10-2-64 1225	--- 4 est. Clear.	7.6	500 620				< 25		8.0	84	DWR
11-3-64 1500	--- 6 est. Clear.	7.6	230 230				< 25		8.0	84	DWR
12-1-64 1330	--- 9 est. Clear.	7.5	130 23				< 25		7.8	84	DWR
1-7-65 1255	--- 20 est. Clear.	7.8	13 62				< 25		11.4	113	DWR
2-3-65 1215	--- 35 est. Slightly turbid.	7.8	240 62				65		10.2	124	DWR
3-2-65 1445	--- 15 est. Clear.	7.6	230 62				< 25		9.6	100	DWR
4-6-65 1440	--- 55 est. Turbid.	8.1	2.3 6.2				420		9.8	97	DWR
5-4-65 1245	--- 40 est. Clear; dredging upstream.	7.6	0.6 2.3				< 25		9.8	102	DWR

LOS ANGELES DRAINAGE PROVINCE (U)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C / Evap 105°C / Computed	Total hardness as $CaCO_3$
Stream name and station number																	
NEAR SANTA PAULA						SANTA CLARA RIVER						46A					
10- 2-64	64	7.9	2217	232 11.58 41	98 8.06 28	196 8.52 30	8 0.20 1	0	305 5.00 18	987 20.55 74	82 2.31 8	5 0.08	1.5	1.00	31	1890 1791	983
11- 3-64	65	8.0	2309	238 11.88 41	103 8.47 29	196 8.52 29	8 0.20 1	0	347 5.69 20	978 20.36 71	87 2.45 9	7 0.11	1.4	1.14	35	1968 1825	1018
12- 1-64	61	7.9	2410	254 12.67 40	113 9.29 30	210 9.13 29	8 0.20 1	0	352 5.77 18	1084 22.57 72	97 2.74 9	8 0.13	1.4	1.10	30	2090 1980	1099
1- 7-65	60	8.1	1965	214 10.68 44	77 6.33 26	160 6.96 29	7 0.18 1	0	318 5.21 21	806 16.78 69	78 2.20 9	7 0.11	1.4	1.05	--	1590 1508	851
2- 3-65	63	7.9	1912	196 9.78 42	80 6.58 28	156 6.78 29	6 0.15 1	0	298 4.88 21	781 16.26 70	72 2.03 9	8 0.13 1	1.6	0.96	--	1530 1448	819
3- 2-65	64	7.7	2365	253 12.62 42	101 8.31 28	208 9.04 30	8 0.20 1	0	330 5.41 18	1048 21.82 73	89 2.51 8	8 0.13	1.6	1.08	--	2035 1880	1047
4- 6-65	60	8.0	1234	131 6.54 47	44 3.62 26	82 3.57 26	4 0.10 1	0	237 3.88 28	413 8.60 63	39 1.10 8	3 0.05	1.2	0.66	--	919 834	508
5- 4-65	64	7.5	1567	161 8.03 44	62 5.10 28	114 4.96 27	5 0.13 1	0	273 4.47 25	569 11.85 66	55 1.55 9	6 0.10 1	1.3	0.90	--	1200 1108	657

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

LOS ANGELES DRAINAGE PROVINCE (U)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number SANTA CLARA RIVER 46A											
NEAR SANTA PAULA											
6-2-65 0330	--- 50 est. Large flow.	7.7	2.3 23				<25		10.2	101	DWR
7-6-65 1030	--- 19 est. Clear; small fish; green algae on surface.	7.4	23 ---				<25		8.6	95	DWR
8-3-65 1030	--- 16 est. Clear.	7.4	70 240				<25		10.0	107	DWR
9-2-65 1445	--- 10 est. Clear; small fish; much green algae.	7.4	23 62				<25		8.8	100	DWR

TABLE D-2

ANALYSES OF SURFACE WATER

LOS ANGELES DRAINAGE PROVINCE (U)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactance value									Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C Evap 105°C Computed	Total hardness as $CaCO_3$
Stream name and station number																	
NEAR SANTA PAULA				SANTA CLARA RIVER 46A													
6- 2-65	60	7.8	1595	169 8.43 44	66 5.43 29	115 5.00 26	5 0.13 1	0	303 4.97 26	586 12.20 64	57 1.61 8	12 0.19 1	1.3	0.80	--	1280 1161	694
7- 6-65	69	7.6	1919	191 9.53 41	80 6.58 28	161 7.00 30	7 0.18 1	0	293 4.80 21	785 16.34 70	69 1.95 8	6 0.10	1.0	0.92	--	1575 1445	806
8- 3-65	66	7.7	2375	226 11.28 38	104 8.55 29	215 9.35 32	9 0.23 1	0	320 5.24 18	1055 21.97 74	88 2.48 8	4 0.06	1.3	1.25	--	2030 1861	992
9- 2-65	72	8.0	2291	228 11.38 40	98 8.06 28	200 8.70 31	8 0.20 1	0	328 5.38 19	964 20.07 72	82 2.31 8	11 0.18 1	1.5	2.25	--	1940 1756	973

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

LOS ANGELES DRAINAGE PROVINCE (U)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number											
NEAR SANTA PAULA			SANTA PAULA CREEK 46E								
10-2-64 1155	1.45 0.1 Clear; little foam.	7.8	6.2 6.2	0.00	0.06		< 25		10.6	116	DWR
11-3-64 1420	1.54 0.6 Clear; foam.	7.6	13 6.2	0.0	0.09		< 25		8.6	89	DWR
12-1-64 1305	1.59 1.3 Clear.	7.5	62 23				< 25		8.2	78	DWR
12-15-64 1415	1.38 3.3	--	--				--		--	--	FGL
1-7-65 1210	1.83 3.6 Clear; some foam.	7.9	13 2.1	0.00	0.04		< 25		11.2	106	DWR
2-3-65 1145	1.76 4.9 Clear.	7.8	< 0.45 1.3				< 25		10.6	99	DWR
3-2-65 1415	1.73 3.3 Clear.	7.8	< 0.45 0.6				< 25		10.2	105	DWR
4-6-65 1425	2.16 12 Clear.	7.7	2.3 2.3				< 25		10.8	102	DWR

LOS ANGELES DRAINAGE PROVINCE (U)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C / Evap 105°C / Computed	Total hardness as $CaCO_3$
Stream name and station number																	
NEAR SANTA PAULA				SANTA PAULA CREEK 46E													
10- 2-64	68	7.9	1437	78 3.89 25	44 3.62 23	188 8.17 52	3 0.08 1	0	344 5.64 36	288 6.00 39	137 3.86 25	2 0.03	0.7	1.10	20	940 931	376
11- 3-64	63	7.9	1526	108 5.39 32	46 3.78 23	173 7.52 45	3 0.08	0	407 6.67 40	307 6.39 38	122 3.44 21	17 0.27 2	0.8	1.00	20	1002 998	459
12- 1-64	57	7.8	1319	98 4.89 33	42 3.45 23	147 6.39 43	3 0.08 1	0	362 5.93 41	294 6.12 43	81 2.28 16	1 0.02	0.6	0.82	15	860 860	417
12-15-64	--	8.0	1340	89 4.44	38 3.13	144 6.26	--	--	358 5.87	269 5.60	92 2.59	--	0.4	0.81	--	882	379
1- 7-65	56	8.1	971	98 4.89 46	28 2.30 21	80 3.48 32	2 0.05	0	271 4.44 41	229 4.77 44	53 1.49 14	1 0.02	0.6	0.36	--	630 625	360
2- 3-65	55	8.0	935	90 4.49 45	28 2.30 23	74 3.22 32	2 0.05	0	240 3.93 39	225 4.68 47	50 1.41 14	1 0.02	0.5	0.39	--	625 589	340
3- 2-65	63	8.3	998	90 4.49 42	29 2.38 22	86 3.74 35	2 0.05	7 0.23 2	247 4.05 38	230 4.79 45	57 1.61 15	1 0.02	0.7	0.42	--	653 625	344
4- 6-65	56	8.1	863	90 4.49 50	23 1.89 21	59 2.57 29	2 0.05 1	0	240 3.93 43	196 4.08 45	39 1.10 12	1 0.02	0.5	0.29	--	574 529	319

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

LOS ANGELES DRAINAGE PROVINCE (U)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number NEAR SANTA PAULA			SANTA PAULA CREEK 46E								
5-4-65 1215	2.04 12 Clear; green algae.	7.8	0.6 6.2				<25		9.4	96	DWR
6-2-65 0300	1.76 4.6 Clear.	7.8	23 23				<25		10.6	102	DWR
7-6-65 0900	1.70 1.2 Clear.	7.6	62 62				<25		9.0	93	DWR
8-3-65 1000	1.43 1.8 Clear.	7.7	70 70				<25		8.6	92	DWR
9-2-65 1405	1.44 0.5 Clear.	8.3	62 700				<25		8.0	91	DWR

TABLE D-2

ANALYSES OF SURFACE WATER

LOS ANGELES DRAINAGE PROVINCE (U)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million equivalents percent reactance value									Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C / Evap 105°C / Computed	Total hardness as $CaCO_3$
Stream name and station number																	
NEAR SANTA PAULA — SANTA PAULA CREEK — 46E																	
5- 4-65	62	7.5	760	87 4.34 54	23 1.89 23	42 1.83 23	1 0.03	0	210 3.44 43	186 3.87 48	27 0.76 9	1 0.02	0.5	0.20	--	487 471	312
6- 2-65	57	7.8	923	102 5.09 51	27 2.22 22	60 2.61 26	2 0.05 1	0	273 4.47 44	214 4.46 44	40 1.13 11	1 0.02	0.5	0.26	--	636 581	366
7- 6-65	63	7.8	1022	102 5.09 46	29 2.38 21	84 3.65 33	2 0.05	0	300 4.92 44	232 4.83 43	52 1.47 13	1 0.02	0.6	0.40	--	700 651	374
8- 3-65	66	7.7	1088	90 4.49 38	32 2.63 22	108 4.70 39	5 0.13 1	0	310 5.08 42	240 5.00 42	66 1.86 16	2 0.03	0.6	0.57	--	750 697	356
9- 2-65	72	7.9	1169	89 4.44 35	37 3.04 24	116 5.04 40	2 0.05	0	298 4.88 39	254 5.29 42	80 2.26 18	1 0.02	0.5	0.65	--	758 727	374

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

LOS ANGELES DRAINAGE PROVINCE (U)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number NEAR SAN FERNANDO			LOS ANGELES AQUEDUCT 70								
10-20-64 --	-- 466.9	8.4	0.00 Min. 0.05 Max.				3		8.4	90	LADW&P
5 day B.O.D. = 0.9 ppm; color = 10. Arsenic= 0.018 ppm Total Alkalinity 128 ppm.											
12-22-64 --	-- 485.7	8.7	0.00 Min. 0.09 Max.				6		9.6	82	LADW&P
Total alkalinity 125 ppm; 5 day B.O.D. 1.5 ppm; color = 5; no odor.											
1-19-65 --	-- 439.5	8.1	0.00 Min. 0.09 Max.				6		11.8	98	LADW&P
Total alkalinity 115 ppm; 5 day B.O.D. 1.8 ppm; color = 5; no odor; Fe 0.04 ppm.											
2-23-65 --	-- 265.4	8.6	0.00 Min. 0.00 Max.				7		8.2		LADW&P
Total alkalinity 110 ppm; 5 day B.O.D. 1.1 ppm; color = 15; odor = 0; Total Kjeldahl nitrogen 0.48 ppm.											
4-20-65 --	-- 412.6	8.7	0.00 Min. 0.09 Max.				4		8.8	84	LADW&P
Total alkalinity 125 ppm; 5 day B.O.D. 0.9 ppm; color = 5; odor = 0; total kjeldahl nitrogen 0.24 ppm.											
5-18-65 --	-- 465.4	7.0	0.00 Min. 0.16 Max.				5		7.6	71	LADW&P
Total alkalinity 125 ppm; 5 day B.O.D. = 0.6 ppm; color = 5; total kjeldahl nitrogen 0.32 ppm.											
6-22-65 --	-- 465.4	8.3	0.00 Min. 0.16 Max.				5		7.2		LADW&P
Total alkalinity 118 ppm; 5 day B.O.D. = 0.6 ppm; color = 20; total kjeldahl nitrogen 0.16 ppm.											
7-20-65 --	-- 495	7.9	0.00 Min. 0.16 Max.				6		7.6	87	LADW&P
Total alkalinity 90 ppm; 5 day B.O.D. = 1.2 ppm; color = 20; total kjeldahl nitrogen 0.12 ppm.											

TABLE 5-2
ANALYSES OF SURFACE WATER

LOS ANGELES DRAINAGE PROVINCE (U)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C Evap 105°C Computed	Total hardness as $CaCO_3$
Stream name and station number																	
NEAR SAN FERNANDO				LOS ANGELES AQUEDUCT 70													
10-20-64	66	8.5	361	25 1.25	7 0.58	38 1.65	5 0.13	--	--	33 0.69	20 0.56	0.8 0.01	0.6	0.43	22		92
12-22-64	47	8.4	382	26 1.30	8 0.66	36 1.57	4 0.10	--	--	26 0.54	18 0.51	0.5 0.01	0.5	0.59	21		98
1-19-65	45	8.3	352	24 1.20	7 0.58	34 1.48	4 0.10	--	--	29 0.60	19 0.54	0.6 0.01	0.7	0.41	22		89
2-23-65	52	8.3	335	24 1.20	7 0.58	33 1.43	4 0.10	--	--	30 0.62	16 0.45	1.0 0.02	0.5	0.40	21		89
4-20-65	55	8.4	347	24 1.20	6 0.49	40 1.74	4 0.10	--	--	25 0.52	21 0.59	0.7 0.01	0.7	0.57	23		85
5-18-65	54	8.4	349	24 1.20	7 0.58	40 1.74	4 0.10	0	--	24 0.50	21 0.59	0.7 0.01	0.6	0.62	21		89
6-22-65	66	8.4	305	21 1.05	6 0.49	32 1.39	4 0.10	--	--	19 0.40	16 0.45	0.5 0.01	0.6	0.42	20		77
7-20-65	73	8.2	264	19 0.95	5 0.41	26 1.13	3 0.08	0	--	17 0.35	12 0.34	0.3	0.5	0.31	18		68

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

LOS ANGELES DRAINAGE PROVINCE (U)

Date Time Remarks	Gage ht.(ft) Flow (cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number											
NEAR SAN FERNANDO			LOS ANGELES AQUEDUCT 70								
3-17-65 --	-- 494.3	8.5	0.00 Min. 0.16 Max.				5		7.2		LADW&P
Total alkalinity 78 ppm; 5 day B.O.D. 1.7 ppm; color = 5; no odor; total kjeldahl nitrogen 0.16 ppm.											
9-21-65 --	-- 442	8.5	0.00 Min. 0.09 Max.				7		8.2		LADW&P
Total alkalinity = 85 ppm; 5 day B.O.D. 3.1 ppm; color = 10; odor = 0; total kjeldahl nitrogen 0.28 ppm.											
The coliform reported for this station is the maximum and minium of 5 samples collected at various days during the month and reported to us by Los Angeles Department of Water and Power.											

TABLE D-2
ANALYSES OF SURFACE WATER

LOS ANGELES DRAINAGE PROVINCE (U)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million / equivalents per million / percent reactance value									Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C Evap 105°C Computed	Total hardness as $CaCO_3$
Stream name and station number																	
NEAR SAN FERNANDO				LOS ANGELES AQUEDUCT 70													
8-17-65	70	8.2	245	18 0.90	5 0.41	22 0.96	3 0.08	0	--	19 0.40	10 0.28	0.4 0.01	0.5	0.30	19		66
9-21-65	68	8.4	253	19 0.95	5 0.41	23 1.00	3 0.08	--	--	19 0.40	9 0.25	0.4 0.01	0.6	0.26	18		68

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

LOS ANGELES DRAINAGE PROVINCE (U)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number				LOS ANGELES RIVER			47				
AT FIGUEROA STREET											
10-7-64	Not given	--	--				--	0.02	19.8	124	CDPH
1200	0.05		--								
	Clear; oil and grease 1.4 ppm; 5 day B.O.D. 7ppm; algae very heavy; no odor.										
12-2-64	0.01	--	24.0				--	0.02	15.4	160	CDPH
1255	0.1		--								
	5 day B.O.D.; 4 ppm; oil and grease 0.0 ppm.										
1-6-65	0.02	--	--				--	0.008	9.0	82	CDPH
1100	0.02		--								
	5 day B.O.D. 3 ppm.										
2-3-65	0.02	--	1.3				<25	0.01	9.1	87	CDPH
1035	0.05		--								
	No color; no odor; 5 day B.O.D. 2.2 ppm; oil and grease 1.5 ppm.										
3-3-65	0.102	--	2.3				<25	0.0	10.1	100	CDPH
1130	0.01		--								
	No color; no odor; 5 day B.O.D. 4 ppm; oil and grease 0.6 ppm.										
4-7-65	0.37	--	70+				--	0.005	8.5	86	CDPH
1115	30		--								
	Odorless; colorless; 5 day B.O.D. 8 ppm.										
5-7-65	0.19	8.0	62				<25		7.4	86	DWR
1100	4.6		700+								
	Clear; musty odor; some trash.										
6-2-65	0.02	--	620				--		8.3	87	CDPH
1100	0.10		--								

TABLE D-2

ANALYSES OF SURFACE WATER

LOS ANGELES DRAINAGE PROVINCE (U)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million / equivalents percent / reactance / million value									Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C / Evap 105°C / Computed	Total hardness as $CaCO_3$
Stream name and station number: LOS ANGELES RIVER 47																	
AT FIGUEROA STREET																	
10- 7-64	77	8.5	--	88 4.39 16	73 6.00 22	385 16.74 62	--	12 0.40 2	194 3.18 12	634 13.20 50	343 9.67 37	0.6 0.01	--	--	--	1805 1631	520
12- 2-64	64	8.4	--	98 4.89 20	38 3.13 13	388 16.87 68	--	12 0.40 2	335 5.49 23	398 8.29 34	354 9.98 41	0.7 0.01	--	--	--	1570 1453	401
1- 6-65	52	7.9	--	84 4.19 19	33 2.71 12	350 15.22 68	5 0.13 1	0	346 5.67 29	293 6.10 32	266 7.50 39	0.5 0.01	--	--	--	1261 1202	345
2- 3-65	60	8.0	--	92 4.59 22	33 2.71 13	314 13.65 65	--	0	356 5.83 29	302 6.29 32	277 7.81 39	1.0 0.02	--	--	--	1298 1194	365
3- 3-65	60	8.0	--	96 4.79 21	42 3.45 15	336 14.61 64	--	0	356 5.83 27	347 7.22 33	308 8.69 40	1.0 0.02	--	--	--	1420 1305	412
4- 7-65	60	--	--	54 2.69 41	17 1.40 21	56 2.43 37	--	0	112 1.84 29	143 2.98 48	46 1.30 21	8 0.13 2	--	--	--	455 379	205
5- 7-65	74	7.7	1269	68 3.39 27	22 1.81 15	164 7.13 57	5 0.13 1	0	176 2.88 23	313 6.52 52	114 3.21 25	1 0.02	0.8	0.22	--	810 775	260
6- 2-65	64	8.0	--	90 4.49 22	36 2.96 15	292 12.70 63	--	0	350 5.74 30	274 5.70 30	270 7.61 40	1.3 0.02	--	--	--	1250 1135	373

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

LOS ANGELES DRAINAGE PROVINCE (U)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number				LOS ANGELES RIVER			47				
AT FIGUEROA STREET											
7-7-65 0945	0.05 0.1	--	7000+ --				--		13.2	148	CDPH
Some algae; 5 day B.O.D. 1.1 ppm; oil and grease 7.2 ppm; hex chrome 0.0 ppm.											
8-4-65 1205	0.02 0.1	--	620 --				--		11.4	--	CDPH
Some algae; 5 day B.O.D. 5 ppm; oil and grease 1.0 ppm.											
9-3-65 0920	0.03 0.1	7.9	2400 7000				< 25		16.0	190	DWR
Clear; brown algae; much trash.											

TABLE D-2
ANALYSES OF SURFACE WATER

LOS ANGELES DRAINAGE PROVINCE (U)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactance value									Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C Evap 105°C Computed	Total hardness as $CaCO_3$
Stream name and station number																	
AT FIGUEROA STREET					LOS ANGELES RIVER					47							
7- 7-65	70	7.6	--	92 4.59 27	37 3.04 18	221 9.61 56	--	0	217 3.56 23	390 8.12 52	132 3.72 24	9 0.15 1	0.5	--	--	1387 988	382
8- 4-65	78	8.1	--	60 2.99	45 3.70	445 19.35	--	--	290 4.75	408 8.49	430 12.13	--	--	--	--	1700	335
9- 3-65	76	7.9	2488	96 4.79 18	52 4.28 16	385 16.74 65	5 0.13 1	0	386 6.33 24	448 9.33 36	370 10.43 40	5 0.08	0.8	1.50	--	1620 1553	454

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

LOS ANGELES DRAINAGE PROVINCE (U)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number					RIO HONDO						
AT WHITTIER NARROWS							49				
10-7-64 1035	Dry - no flow.										
11-6-64 1325	2.85 93.5 Clear.	7.7	23 23				< 25		7.8	80	DWR
12-2-64 1000	3.34 183 Clear.	7.8	23 2.3				< 25		8.8	89	DWR
1-8-65 0930	3.56 165 Clear.	7.8	23 6.2				< 25		10.3	100	DWR
2-1-65 1450	3.13 152 Clear; all Colorado River water.	8.0	2.3 23				< 25		10.9	105	DWR
3-5-65 1000	2.81 143 Clear.	7.9	13 6.2				< 25		9.6	94	DWR
4-9-65 0900	2.12 28 Turbid; raining.	7.2	700 240				160		9.8	89	DWR
5-7-65 0830	2.88 167 Clear.	7.8	23 23				< 25		8.8	92	DWR

LOS ANGELES DRAINAGE PROVINCE (U)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million / equivalents per million / percent reactance value									Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C Evap 105°C Computed	Total hardness as $CaCO_3$
Stream name and station number AT WHITTIER NARROWS				RIO HONDO 49													
10- 7-64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
11- 6-64	72	8.0	1117	84 4.19 36	32 2.63 23	106 4.61 40	5 0.13 1	0	140 2.29 20	305 6.35 55	100 2.82 25	1 0.02	0.6	0.17	11	740 714	341
12- 2-64	61	8.0	1107	83 4.14 35	33 2.71 23	108 4.70 40	5 0.13 1	0	145 2.38 20	304 6.33 53	112 3.16 27	2 0.03	0.6	0.16	12	730 731	343
1- 8-65	54	8.0	1127	89 4.44 38	28 2.30 20	108 4.70 41	5 0.13 1	0	148 2.43 21	316 6.58 56	99 2.79 24	2 0.03	0.6	0.14	--	740 720	337
2- 1-65	57	8.2	1145	89 4.44 37	31 2.55 22	109 4.74 40	5 0.13 1	0	148 2.43 21	309 6.43 55	102 2.88 24	2 0.03	0.5	0.15	--	770 720	350
3- 5-65	58	8.2	1149	91 4.54 38	30 2.47 20	113 4.91 41	5 0.13 1	0	146 2.39 20	319 6.64 56	102 2.88 24	1 0.02	0.6	0.14	--	770 733	351
4- 9-65	52	7.3	267	22 1.10 46	5 0.41 17	17 0.74 31	6 0.15 6	0	71 1.16 47	38 0.79 32	16 0.45 18	4 0.06 2	0.4	0.09	--	165 143	76
5- 7-65	64	7.9	1149	92 4.59 38	29 2.38 20	115 5.00 41	5 0.13 1	0	151 2.47 20	321 6.68 55	102 2.88 24	2 0.03	0.7	0.18	--	785 741	349

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

LOS ANGELES DRAINAGE PROVINCE (U)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number											
AT WHITTIER NARROWS			RIO HONDO 49								
6-4-65 2310	1.76 175 Clear.	7.8	700 62				< 25		9.0	94	DWR
7-9-65 1515	2.04 58 Clear.	7.7	6 23				< 25		8.2	99	DWR
8-6-65 1715	1.14 0.8 Clear; low flow.	7.9	13 23				< 25		9.2	118	DWR
9-3-65 1210	1.16 1.2 Clear; floating green algae; small fish.	7.9	20 700				< 25		15.8	193	DWR

LOS ANGELES DRAINAGE PROVINCE (U)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactance value									Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C Evap 105°C Computed	Total hardness as $CaCO_3$
Stream name and station number																	
AT WHITTIER NARROWS						RIO HONDO					49						
	64	7.4	978	73	23	98	5	0	178	223	81	3	0.7	0.18	--	629	277
6- 4-65				3.64	1.89	4.26	0.13		2.92	4.64	2.28	0.05					
				37	19	43	1		30	47	23	1				594	
	78	8.2	1233	95	34	120	6	0	146	327	122	2	0.7	0.20	--	836	377
7- 9-65				4.74	2.80	5.22	0.15		2.39	6.81	3.44	0.03					
				37	22	40	1		19	54	27					779	
	84	8.8	1011	76	27	108	7	24	166	225	87	2	1.5	0.30	--	690	301
8- 6-65				3.79	2.22	4.70	0.18	0.80	2.72	4.68	2.45	0.03					
				35	20	43	2	7	25	44	23					639	
	79	8.2	1431	96	35	165	9	0	220	362	128	12	1.3	0.36	--	1000	384
9- 3-65				4.79	2.88	7.17	0.23		3.61	7.54	3.61	0.19					
				32	19	48	2		24	50	24	1				917	

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

LOS ANGELES DRAINAGE PROVINCE (U)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number											
ABOVE SPREADING GROUNDS			RIO HONDO			49B					
10-7-64 1100	Dry - no flow.										
11-6-64 1345	7.12 100 est.	7.5	240 130	4	0.54		<25		7.4	87	DWR
	Clear; much floating vegetation; high flow; foam.										
12-2-64 1050	3.73 200 est.	7.8	62 23	0.32	0.16		<25		8.6	87	DWR
	Clear; little foam.										
1-8-65 1005	4.21 170 est.	7.7	62 6.2	0.2	0.05		<25		10.8	100	DWR
	Clear; some foam.										
2-1-65 1515	4.78 175 est.	8.0	6.2 23	--	--		<25		10.0	101	DWR
	Clear; some debris in water.										
3-5-65 0950	-- 150 est.	8.0	700+ 700	1.8	0.2		80		8.4	83	DWR
	Turbid; much silt.										
4-9-65 0915	6.08 250 est	7.1	2,400 2,400	2.8	0.24		430		10.0	90	DWR
	Turbid; rainy; peak flow.										
5-7-65 0800	-- 144	7.8	<0.45 <0.45	0.2	0.0		<25		8.2	86	DWR
	Clear.										

LOS ANGELES DRAINAGE PROVINCE (U)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C / Evap 105°C / Computed	Total hardness as $CaCO_3$
Stream name and station number: RIO HONDO 49B																	
ABOVE SPREADING GROUNDS																	
10- 7-64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
11- 6-64	76	7.8	1111	78 3.89 34	30 2.47 22	110 4.78 42	7 0.18 2	0	145 2.38 21	273 5.68 50	99 2.79 25	31 0.50 4	0.7	0.24	16	714 716	318
12- 2-64	61	7.8	1106	80 3.99 34	35 2.88 25	108 4.70 40	5 0.13 1	0	148 2.43 21	304 6.33 55	100 2.82 24	2 0.03	0.6	0.16	12	720 719	344
1- 8-65	54	7.8	1136	89 4.44 38	28 2.30 20	108 4.70 41	5 0.13 1	0	150 2.46 21	314 6.54 55	100 2.82 24	2 0.03	0.6	0.14	--	730 720	337
2- 1-65	61	8.2	1134	89 4.44 38	29 2.38 20	110 4.78 41	5 0.13 1	0	148 2.43 21	311 6.48 55	101 2.85 24	2 0.03	0.5	0.16	--	748 720	341
3- 5-65	60	7.9	1192	94 4.69 37	31 2.55 20	118 5.13 41	6 0.15 1	0	181 2.97 24	296 6.16 49	116 3.27 26	3 0.05	0.7	0.20	--	780 754	362
4- 9-65	52	7.2	233	15 0.75 38	4 0.33 17	18 0.78 39	5 0.13 7	0	55 0.90 44	28 0.58 28	18 0.51 25	4 0.06 3	0.3	0.12	--	148 119	54
5- 7-65	64	7.9	1148	90 4.49 38	30 2.47 21	112 4.87 41	5 0.13 1	0	149 2.44 20	319 6.64 55	102 2.88 24	2 0.03	0.7	0.18	--	780 734	348

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

LOS ANGELES DRAINAGE PROVINCE (U)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number RIO HONDO 49B											
ABOVE SPREADING GROUNDS											
6-4-65 2345	7.00 150 Clear.	7.6	23 13	6.3	0.32		<25		9.0	98	DWR
7-9-65 1450	-- 55 Clear; low flow.	7.3	23 2.3	6.3	0.26		<25		8.6	119	DWR
8-6-65 1650	-- Trickle Clear; much foam; low flow.	8.0	1.2 <0.45	1.7	0.8	0.7	35		6.2	84	DWR
9-3-65 1245	-- 0.33 est. Clear; little foam.	7.8	<0.45 <0.45	1.5	1.28		<25		11.2	160	DWR

LOS ANGELES DRAINAGE PROVINCE (U)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactance value									Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C Evap 105°C Computed	Total hardness as $CaCO_3$
Stream name and station number				RIO HONDO						49B							
ABOVE SPREADING GROUNDS																	
6- 4-65	68	7.0	1142	62 3.09 27	22 1.81 16	143 6.22 55	7 0.18 2	0	143 2.34 21	266 5.54 49	106 2.99 26	28 0.45 4	0.8	0.21	--	705 705	245
7- 9-65	91	7.5	1227	87 4.34 34	30 2.47 20	128 5.57 44	8 0.20 2	0	176 2.88 23	289 6.02 49	117 3.30 27	12 0.19 2	0.8	0.23	--	825 759	341
8- 6-65	89	7.8	1848	130 6.49 34	12 0.99 5	252 10.96 57	26 0.66 3	0	137 2.25 12	473 9.85 52	231 6.51 34	16 0.26 1	1.1	0.63	--	1300 1209	374
9- 3-65	95	9.4	1245	37 1.85 16	5 0.41 4	200 8.70 77	15 0.38 3	29 0.97 8	46 0.75 6	199 4.14 36	205 5.78 50	1 0.02	2.0	1.10	--	790 717	113

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

LOS ANGELES DRAINAGE PROVINCE (U)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number				LOS ANGELES RIVER			48				
AT PACIFIC COAST HIGHWAY											
10-7-64	Not given	--	240,000				--	0.05	0.00	0	LBHD
1015	15.2		--								
	Very marked turbidity; green and brown algae; 5 day B.O.D. 44.7 ppm; oil and grease 29.6 ppm.										
11-4-64	0.52	--	7,000				--	0.16	1.90	21	LBHD
1020	11.5		--								
	Marked turbidity; gray-white color; hydrocarbon odor; 5 day B.O.D. 56.5 ppm; oil and grease 12.0 ppm.										
12-2-64	0.53	--	24.0				--	0.40	--	--	LBHD
1020	12.0		--								
	Turbid; oil and grease 12.2 ppm.										
1-6-65	0.48	--	130				--	0.20	11.4	110	LBHD
1055	9.0		--								
	Marked turbidity; 5 day B.O.D. 12.2 ppm; oil and grease 67 ppm.										
2-3-65	0.48	--	6,200				--	0.12	1.0	10	LBHD
1020	11.5		--								
	Heavy turbidity; oily odor; 5 day B.O.D. 79.6 ppm; oil and grease 16 ppm.										
3-3-65	0.53	--	240				--	0.15	2.0	20	LBHD
1035	12.5		--								
	Heavy turbidity; brown color; 5 day B.O.D. 64 ppm; oil and grease 88 ppm.										
4-14-65	1.10	--	21,000				--	--	7.1	76	LBHD
1000	55		--								
	Heavy turbidity; brownish color; odorless; 5 day B.O.D. 21.5 ppm oil and grease 20.6 ppm. Hex-chrome 0.046 ppm.										
5-7-65	0.58	8.0	7,000+			7	< 25	--	2.0	21	DWR
0930	26.0		7,000+								
	Turbid; oily odor; yellowish color.										

LOS ANGELES DRAINAGE PROVINCE (U)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C / Evap 105°C / Computed	Total hardness as $CaCO_3$
Stream name and station number																	
AT PACIFIC COAST HIGHWAY				LOS ANGELES RIVER 48													
10- 7-64	72	7.8	--	701 34.98 11	635 52.22 17	5000 217.40 71	--	0	228 3.74 1	1150 23.94 8	10080 284.26 91	0.0	--	--	--	18280 17678	4363
11- 4-64	68	7.6	--	272 13.57 5	565 46.47 17	4850 210.88 78	--	0	249 4.08 1	977 20.34 7	8940 252.11 91	0.0	--	--	--	16750 15726	3004
12- 2-64	--	7.7	--	298 14.87 6	511 42.02 16	4650 202.18 78	--	0	282 4.62 2	731 15.22 5	9156 258.20 93	0.0	--	--	--	16074 15485	2847
1- 6-65	57	7.2	--	261 13.02 7	312 25.66 14	3400 147.83 79	--	0	293 4.80 2	697 14.51 6	7690 216.86 92	0.5 0.01	--	--	--	15000 12505	1936
2- 3-65	59	7.7	--	294 14.67 5	700 57.57 20	4893 212.75 75	--	0	213 3.49 1	1061 22.09 7	9785 275.94 92	0.4 0.01	--	--	--	17539 16838	3615
3- 3-65	59	7.5	--	246 12.28 5	383 31.50 12	4800 208.70 83	--	0	243 3.98 2	886 18.45 8	7920 223.34 91	0.0	--	--	--	14760 14354	2191
4-14-65	59	--	--	76 3.79 11	43 3.54 10	615 26.74 78	--	0	123 2.02 6	100 2.08 6	1039 29.30 87	6.1 0.10	--	--	--	2013 1940	367
5- 7-65	66	7.6	5882	106 5.29 9	65 5.35 9	1100 47.83 81	18 0.46 1	0	283 4.64 8	312 6.50 11	1685 47.52 81	12 0.19	1.1	3.60	--	3690 3442	532

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

LOS ANGELES DRAINAGE PROVINCE (U)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number											
AT PACIFIC COAST HIGHWAY			LOS ANGELES RIVER 48								
6-2-65 1100	0.49 10.0	--	620 --				--	0.8	0.0	0	LBHD
	Heavy turbidity; black color; strong odor; 5 day B.O.D. 402 ppm; oil and grease 33 ppm.										
8-4-65 1115	0.67 18.6	--	1.3 --				--	0.6	0.0	0	LBHD
	Very high turbidity; black color; algae; some scum and sludge; 5 day B.O.D. 237 ppm oil and grease 35.4 ppm.										
9-3-65 1015	0.61 13.0	7.3	620 620			54			0.4	5	DWR
	Slightly turbid; oil and sewage odor; arsenic 2.5 ppm.										

TABLE D-2

ANALYSES OF SURFACE WATER

LOS ANGELES DRAINAGE PROVINCE (U)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactance value									Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C Evap 105°C Computed	Total hardness as $CaCO_3$
Stream name and station number																	
AT PACIFIC COAST HIGHWAY				LOS ANGELES RIVER						48							
	79	7.6	--	500	295	8800	--	0	525	214	13802	0.7	--	--	--	24887	2462
6- 2-65				24.95	24.26	382.62			8.60	4.46	389.22	0.01					
				6	6	89			2	1	97					23870	
	93	7.2	--	612	338	10	--	0	555	10	16690	0.2	--	--	--	31594	2919
8- 4-65				30.54	27.80	0.43			9.10	0.21	470.66						
				52	47	1			2		98					17933	
	92	7.3	33784	422	273	7600	74	0	842	29	12900	25	2.0	30.00	--	23040	2177
9- 3-65				21.06	22.45	330.45	1.89		13.80	0.60	363.78	0.40					
				6	6	88	1		4		96					21769	

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

LOS ANGELES DRAINAGE PROVINCE (U)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number											
AT AZUSA POWERHOUSE			SAN GABRIEL RIVER				50D				
10-7-64 0900	-- 60 Clear.	7.6	130 <0.45				< 25		9.0	98	DWR
11-6-64 1035	-- 60 Clear.	7.6	<0.45 0.6				< 25		9.6	98	DWR
12-2-64 0845	-- 80 Clear.	7.5	2.3 0.6				< 25		9.0	84	DWR
1-8-65 0830	-- 60 Clear.	7.8	<0.45 0.6				< 25		10.2	88	DWR
2-1-65 1105	-- 7 Clear; low flow.	7.8	<0.45 <0.45				< 25		10.4	95	DWR
3-5-65 1145	-- 7 Clear.	7.8	62 130				< 25		11.4	104	DWR
4-9-65 1040	-- 60 est. Slightly turbid.	7.5	6.0 6.0				< 25		10.6	93	DWR
5-6-65 1130	-- 80 Clear.	7.3	<0.45 <0.45				< 25		10.2	92	DWR

LOS ANGELES DRAINAGE PROVINCE (U)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million; equivalents per million; percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C / Evap 105°C / Computed	Total hardness as $CaCO_3$
Stream name and station number																	
AT AZUSA POWERHOUSE				SAN GABRIEL RIVER										50D			
10- 7-64	68	7.9	405	51 2.54 57	16 1.32 30	11 0.48 11	4 0.10 2	0	223 3.65 85	26 0.54 13	3 0.08 2	1 0.02	0.6	0.10	15	235 237	193
11- 6-64	62	8.0	471	64 3.19 61	17 1.40 27	11 0.48 9	5 0.13 3	0	272 4.46 86	25 0.52 10	6 0.17 3	3 0.05 1	0.4	0.11	18	286 283	230
12- 2-64	54	8.1	466	66 3.29 65	14 1.15 23	12 0.52 10	4 0.10 2	0	261 4.28 83	32 0.67 13	6 0.17 3	2 0.03 1	0.5	0.10	19	262 284	222
1- 8-65	48	8.0	448	63 3.14 65	13 1.07 22	12 0.52 11	4 0.10 2	0	246 4.03 81	36 0.75 15	5 0.14 3	2 0.03 1	0.5	0.08	--	260 256	211
2- 1-65	53	8.1	434	60 2.99 64	13 1.07 23	11 0.48 10	4 0.10 2	0	233 3.82 82	33 0.69 15	5 0.14 3	1 0.02	0.5	0.12	--	252 242	203
3- 5-65	53	8.2	433	56 2.79 59	16 1.32 28	12 0.52 11	4 0.10 2	0	237 3.88 81	35 0.73 15	6 0.17 4	1 0.02	0.5	0.12	--	260 247	206
4- 9-65	50	7.9	378	48 2.40 60	13 1.07 27	10 0.43 11	3 0.08 2	0	190 3.11 79	30 0.62 16	4 0.11 3	5 0.08 2	0.5	0.06	--	231 207	174
5- 6-65	52	7.8	366	42 2.10 55	15 1.23 32	10 0.43 11	3 0.08 2	0	188 3.08 80	27 0.56 15	5 0.14 4	4 0.06 2	0.6	0.12	--	230 199	167

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

LOS ANGELES DRAINAGE PROVINCE (U)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number					SAN GABRIEL RIVER			50D			
AT AZUSA POWERHOUSE											
6-4-65 2245	-- 60 Clear.	7.4	<0.45 60				<25		9.6	90	DWR
7-9-65 1340	-- 60 Clear; green algae on sides of channel.	7.4	<0.45 <0.45				<25		9.8	102	DWR
8-6-65 1300	-- 60 Clear.	7.4	2.3 6.2				<25		8.8	88	DWR
9-3-65 1500	-- 60 Clear; no odor.	7.4	0.6 1.3				<25		8.2	94	DWR

LOS ANGELES DRAINAGE PROVINCE (U)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C	TDS Evap 105°C Computed	Total hardness as $CaCO_3$
Stream name and station number																		
AT AZUSA POWERHOUSE						SAN GABRIEL RIVER					50D							
	60	7.5	341	47	11	8	3	0	178	27	4	2	0.3	0.06	--		174	163
6- 4-65				2.35	0.90	0.35	0.08		2.92	0.56	0.11	0.03						
				64	24	10	2		81	15	3	1					190	
	64	7.8	349	48	11	8	3	0	188	26	4	2	0.4	0.07	--		203	165
7- 9-65				2.40	0.90	0.35	0.08		3.08	0.54	0.11	0.03						
				64	24	9	2		82	14	3	1					195	
	68	7.6	347	45	12	10	3	0	186	26	4	2	0.5	0.08	--		196	162
8- 6-65				2.25	0.99	0.43	0.08		3.05	0.54	0.11	0.03						
				60	26	11	2		82	14	3	1					194	
	72	8.0	351	41	15	11	3	0	181	29	8	1	0.5	0.06	--		220	164
9- 3-65				2.05	1.23	0.48	0.08		2.97	0.60	0.23	0.02						
				53	32	13	2		78	16	6	1					197	

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

LOS ANGELES DRAINAGE PROVINCE (U)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number											
AT WHITTIER NARROWS			SAN GABRIEL RIVER 50								
10-7-64 1000	-- 152 Clear.	7.8	62 240				< 25		9.4	109	DWR
11-6-64 1245	-- 210 Clear.	7.9	13 23				< 25		8.4	97	DWR
12-2-64 0930	-- 163 Clear.	8.0	62 62				< 25		8.0	80	DWR
1-3-65 0900	Dry - no flow.										
2-1-65 1420	-- 135 Clear; all Colorado River water.	8.0	240 6.2				< 25		10.6	109	DWR
3-5-65 1030	-- 98 Clear.	7.9	62 23				< 25		10.0	97	DWR
4-9-65 0935	-- 180 est. Turbid; rainy.	7.3	700+ 700+				1,400		10.4	91	DWR
5-7-65 0745	-- 173 Clear.	7.7	230 620				< 25		9.4	115	DWR

TABLE D-2

ANALYSES OF SURFACE WATER

LOS ANGELES DRAINAGE PROVINCE (U)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C Evap 105°C Computed	Total hardness as $CaCO_3$
Stream name and station number																	
AT WHITTIER NARROWS						SAN GABRIEL RIVER					50						
10- 7-64	74	7.8	1080	84 4.19 37	32 2.63 23	102 4.43 39	5 0.13 1	0	137 2.25 20	304 6.33 56	95 2.68 24	1 0.02	0.7	0.14	13	740 704	341
11- 6-64	74	8.3	1107	83 4.14 36	33 2.71 24	104 4.52 39	5 0.13 1	8 0.27 2	125 2.05 18	303 6.31 55	98 2.76 24	1 0.02	0.6	0.16	12	730 709	343
12- 2-64	60	8.0	1119	86 4.29 37	29 2.38 21	108 4.70 41	5 0.13 1	0	145 2.38 21	298 6.20 54	99 2.79 24	3 0.05	0.6	0.15	12	726 712	334
1- 8-65	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
2- 1-65	63	8.4	1128	89 4.44 38	29 2.38 20	107 4.65 40	6 0.15 1	5 0.17 1	140 2.29 20	302 6.29 54	101 2.85 24	3 0.05	0.8	0.16	--	741 712	341
3- 5-65	58	8.1	1138	89 4.44 37	31 2.55 21	110 4.78 40	5 0.13 1	0	154 2.52 21	309 6.43 54	100 2.82 24	4 0.06 1	0.6	0.16	--	760 724	350
4- 9-65	50	7.4	316	29 1.45 50	5 0.41 14	17 0.74 26	11 0.28 10	0	87 1.43 49	38 0.79 27	21 0.59 20	7 0.11 4	0.4	0.13	--	204 171	93
5- 7-65	62	7.9	1170	88 4.39 37	32 2.63 22	112 4.87 41	5 0.13 1	0	151 2.47 21	317 6.60 55	103 2.90 24	3 0.05	0.7	0.18	--	780 735	351

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

LOS ANGELES DRAINAGE PROVINCE (U)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number					SAN GABRIEL RIVER			50			
AT WHITTIER NARROWS											
6-4-65 2350	Dry - no flow.										
7-9-65 1430	-- 125 Clear.	7.8	230 6				< 25		9.0	110	DWR
8-6-65 1630	Dry - no flow.										
9-3-65 1325	Dry - no flow.										

TABLE 5-E

ANALYSES OF SURFACE WATER

LOS ANGELES DRAINAGE PROVINCE (U)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C Evap 105°C Computed	Total hardness as $CaCO_3$
Stream name and station number																	
AT WHITTIER NARROWS					SAN GABRIEL RIVER						50						
6- 4-65	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
7- 9-65	79	8.4	1205	93 4.64 37	33 2.71 21	118 5.13 41	6 0.15 1	7 0.23 2	135 2.21 18	331 6.89 55	111 3.13 25	2 0.03	0.6	0.16	--	820 768	368
8- 6-65	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
9- 3-65	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

LOS ANGELES DRAINAGE PROVINCE (U)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number				COLORADO RIVER			69				
AQUEDUCT AT LA VERNE											
10-0-64							2.1				MWD
	Free CO_2 2 ppm.										
11-0-64							1.1				MWD
	Total alkalinity 110 ppm.										
12-0-64							1.0				MWD
	Free CO_2 1 ppm; color 5 ppm.										
1-0-65							0.4				MWD
	Free CO_2 2 ppm.										
2-0-65							0.8				MWD
	Free CO_2 1 ppm.										
3-0-65							1.0				MWD
	Free CO_2 1 ppm.										
4-0-65							0.8				MWD
	Colorless; odorless; free CO_2 1 ppm.										
5-0-65							0.4				MWD
	Free CO_2 1 ppm.										

LOS ANGELES DRAINAGE PROVINCE (U)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C / Evap 105°C / Computed	Total hardness as $CaCO_3$
Stream name and station number																	
AQUEDUCT AT LA VERNE				COLORADO RIVER 69													
10- 0-64	74	8.1	1100	84 4.19 37	30 2.47 22	104 4.52 40	4 0.10 1	0	135 2.21 20	304 6.33 56	96 2.71 24	0.2	0.4	--	11	701 700	333
11- 0-64	65	8.1	1070	85 4.24 38	30 2.47 22	100 4.35 39	5 0.13 1	0	134 2.20 20	300 6.25 56	97 2.74 24	0.6 0.01	0.3	--	11	696 695	336
12- 0-64	60	8.2	1120	88 4.39 38	30 2.47 22	102 4.43 39	5 0.13 1	1 0.03	137 2.25 20	301 6.27 55	101 2.85 25	0.7 0.01	0.3	0.11	11	709 707	343
1- 0-65	57	8.2	1130	89 4.44 39	30 2.47 22	100 4.35 38	5 0.13 1	0	140 2.29 20	305 6.35 56	98 2.76 24	1.1 0.02	0.4	--	11	709 708	346
2- 0-65	56	8.3	1160	90 4.49 39	30 2.47 21	104 4.52 39	5 0.13 1	0	144 2.36 20	308 6.41 55	101 2.85 25	0.9 0.01	0.4	--	10	722 720	348
3- 0-65	58	8.3	1151	90 4.49 39	31 2.55 22	103 4.48 38	5 0.13 1	0	145 2.38 20	308 6.41 55	102 2.88 25	1.3 0.02	0.4	--	--	724 712	352
4- 0-65	60	--	1160	91 4.54 38	31 2.55 21	107 4.65 39	5 0.13 1	0	146 2.39 20	315 6.56 55	102 2.88 24	1.4 0.02	0.4	--	--	736 725	355
5- 0-65	64	8.3	1170	91 4.54 38	32 2.63 22	106 4.61 39	5 0.13 1	1 0.03	144 2.36 20	321 6.68 56	100 2.82 24	0.9 0.01	0.4	--	10	739 738	359

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

LOS ANGELES DRAINAGE PROVINCE (U)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number				COLORADO RIVER							
AQUEDUCT AT LA VERNE							69				
6-0-65							0.4				MWD
	Color 3 ppm; free CO_2 = 1 ppm; organic nitrogen 0.1 ppm.										
7-0-65							0.5				MWD
	Free CO_2 = 1 ppm.										
8-0-65							1.3				MWD
9-0-65							1.2				MWD
	Free CO_2 = 2 ppm.										

LOS ANGELES DRAINAGE PROVINCE (U)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C Evap 105°C Computed	Total hardness as $CaCO_3$
Stream name and station number																	
AQUEDUCT AT LA VERNE				COLORADO RIVER							69						
6- 0-65	67	8.4	1190	94 4.69 38	31 2.55 21	111 4.83 40	5 0.13 1	0	145 2.38 19	328 6.83 56	106 2.99 24	1.0 0.02	0.4	0.14	10	759 758	362
7- 0-65	--	8.3	1210	94 4.69 38	32 2.63 21	112 4.87 40	5 0.13 1	0	140 2.29 19	332 6.91 56	110 3.10 25	0.9 0.01	0	--	9	765 764	366
8- 0-65	76	8.1	1240	92 4.59 37	33 2.71 22	116 5.04 40	6 0.15 1	0	135 2.21 18	342 7.12 57	114 3.21 26	0.8 0.01	0.4	--	9	780 780	365
9- 0-65	--	8.1	1230	92 4.59 36	33 2.71 21	123 5.35 42	6 0.15 1	0	134 2.20 17	344 7.16 56	119 3.36 26	0.7 0.01	0.5	--	9	794 793	365

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

LAHONTAN DRAINAGE PROVINCE (W)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number				MOJAVE RIVER				67A			
AT THE FORKS											
10-5-64 1210	-- 3 est. Clear.	7.3	23 62				< 25		8.8	95	DWR
11-4-64 1330	-- 8 est. Clear.	7.2	6.2 700+				< 25		7.2	74	DWR
12-3-64 1230	-- 35 est. Clear.	7.4	6 13				< 25		9.4	82	DWR
1-19-65 0835	-- 20 est. Clear.	7.4	1.3 21				< 25		10.2	86	DWR
2-5-65 0910	-- 18 est. Clear.	7.3	2 2.9				< 25		10.0	88	DWR
3-3-65 1630	-- 15 est. Clear.	7.3	13 6.2				< 25		10.6	97	DWR
4-7-65 1315	-- 43 est. Turbid; high flow.	7.4	6.2 6.2				75		9.8	81	DWR
5-5-65 1210	-- 30 est.	7.3	6.2 240				< 25		10.2	104	DWR

ANALYSES OF SURFACE WATER

LAHONTAN DRAINAGE PROVINCE (W)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C / Evap 105°C / Computed	Total hardness as $CaCO_3$
Stream name and station number AT THE FORKS				MOJAVE RIVER							67A						
10- 5-64	67	7.8	578	33 1.65 28	9 0.74 13	78 3.39 58	3 0.08 1	0	142 2.33 42	132 2.75 50	16 0.45 8	1 0.02	4.4	0.32	26	380 373	120
11- 4-64	63	7.5	502	34 1.70 34	7 0.58 12	61 2.65 53	3 0.08 2	0	140 2.29 47	104 2.17 44	15 0.42 9	1 0.02	3.7	0.23	24	320 322	114
12- 3-64	49	7.7	367	26 1.30 36	4 0.33 9	44 1.91 53	3 0.08 2	0	121 1.98 56	51 1.06 30	16 0.45 13	2 0.03 1	3.5	0.13	22	213 231	82
1-19-65	46	7.8	258	20 1.00 39	4 0.33 13	27 1.17 46	2 0.05 2	0	95 1.56 64	24 0.50 20	13 0.37 15	1 0.02 1	1.9	0.10	--	145 140	67
2- 5-65	50	7.6	272	21 1.05 40	4 0.33 12	28 1.22 46	2 0.05 2	0	103 1.69 65	26 0.54 21	13 0.37 14	1 0.02 1	1.8	0.10	--	171 148	69
3- 3-65	53	8.0	271	21 1.05 40	3 0.25 9	30 1.30 49	2 0.05 2	0	105 1.72 66	26 0.54 21	11 0.31 12	1 0.02 1	1.7	0.07	--	120 147	65
4- 7-65	45	7.8	231	21 1.05 47	6 0.49 22	15 0.65 29	2 0.05 2	0	92 1.51 68	17 0.35 16	10 0.28 13	5 0.08 4	0.6	0	--	141 122	77
5- 5-65	62	7.9	143	9 0.45 33	5 0.41 30	11 0.48 35	1 0.03 2	0	61 1.00 75	7 0.15 11	6 0.17 13	1 0.02 1	0.9	0.06	--	100 71	43

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

LAHONTAN DRAINAGE PROVINCE (W)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number AT THE FORKS				MOJAVE RIVER 67A							
6-3-65 1415	-- 25 est. Clear.	7.5	23 2.3				< 25		10.0	111	DWR
7-7-65 1410	-- 6 est. Clear. Swimmers in stream.	7.3	-- --				< 25		7.4	88	DWR
8-4-65 1840	-- 4.5 est. Clear; much trash; oil slick; small fish.	7.4	700+ 700+				< 25		9.6	118	DWR
9-21-65 1335	-- 6 est Clear.	7.3	29 130				< 25		10.2	109	DWR

ANALYSES OF SURFACE WATER

LAHONTAN DRAINAGE PROVINCE (W)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C / Evap 105°C / Computed	Total hardness as $CaCO_3$
Stream name and station number																	
AT THE FORKS				MOJAVE RIVER								67A					
6- 3-65	70	8.7	243	23 1.15 46	5 0.41 17	20 0.87 35	2 0.05 2	7 0.23 9	105 1.72 69	16 0.33 13	7 0.20 8	0	1.2	0.06	--	160 133	78
7- 7-65	77	7.8	300	22 1.10 37	4 0.33 11	34 1.48 50	2 0.05 2	0	124 2.03 68	34 0.71 24	9 0.25 8	0	1.8	0.13	--	210 168	72
8- 4-65	80	7.6	386	24 1.20 31	5 0.41 10	51 2.22 57	3 0.08 2	0	136 2.23 59	58 1.21 32	12 0.34 9	0	2.8	0.17	--	230 223	81
9-21-65	66	7.8	511	30 1.50 30	6 0.49 10	69 3.00 59	3 0.08 2	0	134 2.20 44	113 2.35 47	16 0.45 9	0	3.6	0.26	--	320 307	100

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

LAHONTAN DRAINAGE PROVINCE (W)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number MOJAVE RIVER NEAR VICTORVILLE 67											
10-5-64 1330	2.62 10 Clear.	7.3	62 700				<25		8.6	91	DWR
11-4-64 1445	2.60 13 Clear.	7.3	2,400 23				<25		6.4	64	DWR
12-3-64 1115	3.14 30 Clear.	7.4	2,400 2,400				<25		6.6	61	DWR
1-19-65 0720	1.92 32 Clear; gage tape gone, read staff gage.	7.3	60 210				<25		9.0	79	DWR
2-5-65 0815	1.88 31 Clear.	7.4	6 <4.5				<25		9.8	87	DWR
3-3-65 1750	1.74 32 Clear.	7.4	240 13				<25		10.2	99	DWR
4-7-65 1430	1.47 24 Clear.	8.0	6.2 1.3				<25		10.8	114	DWR
5-5-65 1015	1.22 20 Slightly turbid.	7.9	62 13				80		9.6	99	DWR

LAHONTAN DRAINAGE PROVINCE (W)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C Evap 105°C Computed	Total hardness as $CaCO_3$
Stream name and station number						MOJAVE RIVER											
NEAR VICTORVILLE				67							67						
	65	7.4	518	45	12	48	3	0	209	41	32	2	0.7	0.14	28	310	162
10- 5-64				2.25	0.99	2.09	0.08		3.43	0.85	0.90	0.03					
				42	18	39	1		66	16	17	1				315	
	59	8.0	511	45	10	47	3	0	206	42	34	2	0.6	0.13	29	318	154
11- 4-64				2.25	0.82	2.04	0.08		3.38	0.87	0.96	0.03					
				43	16	39	2		65	17	18	1				314	
	54	7.6	490	45	9	44	3	0	201	38	30	3	0.6	0.10	30	282	150
12- 3-64				2.25	0.74	1.91	0.08		3.29	0.79	0.85	0.05					
				45	15	38	2		66	16	17	1				302	
	50	7.5	488	44	9	44	3	0	196	39	28	4	0.5	0.13	--	280	147
1-19-65				2.20	0.74	1.91	0.08		3.21	0.81	0.79	0.06					
				45	15	39	2		66	17	16	1				268	
	51	8.0	476	43	9	42	3	0	194	40	28	3	0.6	0.12	--	283	145
2- 5-65				2.15	0.74	1.83	0.08		3.18	0.83	0.79	0.05					
				45	15	38	2		66	17	16	1				264	
	58	7.8	462	42	9	44	3	0	203	39	26	3.0	0.5	0.11	--	250	142
3- 3-65				2.10	0.74	1.91	0.08		3.33	0.81	0.73	0.05					
				43	15	40	2		68	16	15	1				266	
	65	8.3	477	40	9	41	9	5	178	43	25	3	0.6	0.06	--	284	137
4- 7-65				2.00	0.74	1.78	0.23	0.17	2.92	0.90	0.71	0.05					
				42	16	37	5	4	61	19	15	1				263	
	63	8.2	559	36	12	52	28	0	205	62	30	4	0.9	0.12	--	350	140
5- 5-65				1.80	0.99	2.26	0.72		3.36	1.29	0.85	0.06					
				31	17	39	12		60	23	15	1				326	

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

LAHONTAN DRAINAGE PROVINCE (W)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number MOJAVE RIVER 67											
NEAR VICTORVILLE											
6-3-65 1315	1.10 18	8.1	23 130				<25		3.8	95	DWR
Clear; yellowish color; hexavalent chromium = 6 ppm.											
7-7-65 1610	0.68 12	7.4	13 5				<25		3.0	95	DWR
Clear; Hexavalent chromium = 0.00 ppm.											
8-4-65 1750	0.60 9.3	7.6	700 700				<25		9.2	109	DWR
Clear; sand bottom has yellow cast; hexavalent chromium = 0.00. ppm.											
9-21-65 1210	0.63 6.1	7.9	2.3 13				100		9.8	105	DWR
Turbid; clearing banks upstream; floating vegetation.											

TABLE 5-E

ANALYSES OF SURFACE WATER

LAHONTAN DRAINAGE PROVINCE (W)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C Evap 105°C Computed	Total hardness as $CaCO_3$
Stream name and station number						MOJAVE RIVER											
NEAR VICTORVILLE				67								67					
	67	8.9	556	33	9	51	32	10	168	68	31	4	1.0	0.12	--	350	120
6- 3-65				1.65	0.74	2.22	0.82	0.33	2.75	1.42	0.87	0.06					
				30	14	41	15	6	51	26	16	1				322	
	76	7.8	523	44	11	49	4	0	205	52	31	2	0.6	0.16	--	330	155
7- 7-65				2.20	0.90	2.13	0.10		3.36	1.08	0.87	0.03					
				41	17	40	2		63	20	16	1				294	
	76	7.6	503	44	11	48	3	0	207	47	31	1	0.6	0.11	--	305	155
8- 4-65				2.20	0.90	2.09	0.08		3.39	0.98	0.87	0.02					
				42	17	40	2		64	19	17					287	
	66	8.7	485	38	14	48	4	25	142	54	32	5	0.6	0.12	--	310	153
9-21-65				1.90	1.15	2.09	0.10	0.83	2.33	1.12	0.90	0.08					
				36	22	40	2	16	44	21	17	2				291	

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number: WHITEWATER RIVER 68											
NEAR WHITEWATER											
11-9-64 1315	1.35 43 est.	7.5	13 23				< 25		7.9	84	DWR
	Clear; raining.										
1-11-65 1140	1.12 14 est.	7.6	2.3 6.2	0.0	0.0		< 25		9.6	98	DWR
	Clear; little foam.										
3- 8-65 1140	1.41 7.0	7.3	13 13				< 25		10.0	107	DWR
	Clear.										
5-10-65 1315	1.31 4.6	7.3	23 23				< 25		9.4	101	DWR
	Clear; no odor.										
7-12-65 0800	1.55 11 est.	7.3	23 --				< 25		9.0	95	DWR
	Clear.										
9- 6-65 1130	-- 15 est.	7.3	240 700+				< 25		9.8	107	DWR
	Clear.										

ANALYSES OF SURFACE WATER

COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C / Evap 105°C / Computed	Total hardness as $CaCO_3$
Stream name and station number																	
NEAR WHITEWATER				WHITEWATER RIVER								68					
11- 9-64	65	7.8	431	54 2.69 58	14 1.15 25	15 0.65 14	5 0.13 3	0	220 3.61 77	41 0.85 18	6 0.17 4	2 0.03 1	1.0	0.01	20	262 266	192
1-11-65	62	8.1	439	57 2.84 61	13 1.07 23	14 0.61 13	5 0.13 3	0	220 3.61 78	40 0.83 18	5 0.14 3	3 0.05 1	1.0	0.01	--	241 246	196
3- 8-65	66	7.6	436	53 2.64 56	16 1.32 28	15 0.65 14	5 0.13 3	0	220 3.61 77	41 0.85 18	7 0.20 4	2 0.03 1	1.0	0.04	--	260 248	198
5-10-65	67	7.8	442	56 2.79 60	13 1.07 23	15 0.65 14	5 0.13 3	0	220 3.61 78	40 0.83 18	5 0.14 3	2 0.03 1	1.0	0.01	--	250 245	193
7-12-65	65	7.8	442	56 2.79 59	15 1.23 26	14 0.61 13	5 0.13 3	0	225 3.69 79	42 0.87 19	4 0.11 2	2 0.03 1	2.9	0.02	--	262 252	201
9- 6-65	67	7.8	441	55 2.74 57	16 1.32 27	15 0.65 14	4 0.10 2	0	222 3.64 77	46 0.96 20	4 0.11 2	2 0.03 1	0.9	0	--	242 252	203

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number WHITEWATER RIVER 683											
NEAR MECCA											
11-9-64 1430	-- 130 est.	8.4	62 700				220		9.2	104	DWR
	Turbid.										
1-11-65 1330	-- 130 est.	7.6	6.2 6.2				280		9.2	95	DWR
	Turbid.										
3- 8-65 1430	-- 130 est.	7.8	6,200 230				175		9.8	110	DWR
	Turbid.										
5-10-65 1415	-- 130 est.	7.8	230 130				200		9.0	106	DWR
	Turbid.										
7-12-65 0930	-- 140 est.	7.5	620 6,200				310		8.6	104	DWR
	Turbid; floating vegetation.										
9- 6-65 1500	-- 150 est.	7.8	6,200 --				250		7.6	97	DWR
	Turbid; much silt.										

COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C	TDS Evap 105°C Computed	Total hardness as $CaCO_3$
Stream name and station number: NEAR MECCA — WHITEWATER RIVER — 68B																		
11- 9-64	72	7.9	3752	172	46	627	13	0	339	944	506	43	4.0	1.14	26	2643		618
				8.58	3.78	27.26	0.33		5.56	19.65	14.27	0.69						
				21	9	68	1		14	49	36	2				2549		
1-11-65	63	7.8	3573	172	43	588	11	0	352	879	471	27	3.5	1.02	--	2420		606
				8.58	3.54	25.57	0.28		5.77	18.30	13.28	0.44						
				23	9	67	1		15	48	35	1				2369		
3- 8-65	71	8.0	3546	162	59	588	13	0	344	925	455	40	3.6	1.00	--	2520		647
				8.08	4.85	25.57	0.33		5.64	19.26	12.83	0.65						
				21	12	66	1		15	50	33	2				2416		
5-10-65	76	7.8	3340	164	45	525	13	0	325	827	412	25	2.7	0.88	--	2286		594
				8.18	3.70	22.83	0.33		5.33	17.22	11.62	0.40						
				23	11	65	1		15	50	34	1				2174		
7-12-65	78	7.7	3336	168	47	535	14	0	325	850	426	30	3.2	0.84	--	2322		613
				8.38	3.87	23.26	0.36		5.33	17.70	12.01	0.48						
				23	11	65	1		15	50	34	1				2234		
9- 6-65	83	7.8	3155	162	51	500	14	0	327	839	400	32	3.5	0.86	--	2200		614
				8.08	4.19	21.74	0.36		5.36	17.47	11.28	0.52						
				24	12	63	1		15	50	33	2				2163		

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number				SALTON SEA			68A				
AT STATE PARK											
11-9-64 1505	-- Sea	8.2	2.3 2.3				< 25		10.2	116	DWR
	Slightly turbid; rough water; high winds.										
1-11-65 1415	-- Sea	8.1	7,000 2,400				< 25		14.6	142	DWR
	Slightly turbid; saline odor.										
3- 8-65 1515	-232.04* Sea	8.1	0.6 6.2				< 25		8.4	94	DWR
	Slightly turbid.										
5-10-65 1500	-231.92* Sea	7.9	< 0.45 0.6				30		9.8	138	DWR
	Turbid; saline odor; yellow brown color.										
7-12-65 1015	-232.34* Sea	7.7	2.3 1.2				< 25		5.6	82	DWR
	Slightly turbid.										
9- 6-65 1535	-232.62* Sea	7.8	23 23				< 25		8.6	115	DWR
	Slightly turbid; sea stirred by wind.										

ANALYSES OF SURFACE WATER

COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C / Evap 105°C / Computed	Total hardness as $CaCO_3$
Stream name and station number AT STATE PARK				SALTON SEA							68A						
11- 9-64	72	7.7	39154	808 40.32 7	1037 85.28 15	9800 426.10 77	162 4.14 1	0	186 3.05 1	7320 152.40 27	14210 400.72 72	11 0.18	3.4	8.20	4	35100 33455	6285
1-11-65	58	7.9	36630	827 41.27 7	1004 82.57 15	10000 434.80 77	180 4.60 1	0	196 3.21 1	7479 155.71 27	14600 411.72 72	22 0.35	3.0	8.40	--	35290 34220	6197
3- 8-65	69	8.0	40323	744 37.13 7	1014 83.39 15	9700 421.76 77	160 4.09 1	0	168 2.75 1	7353 153.09 28	13900 391.98 72	10 0.16	3.6	8.40	--	34260 32976	6031
5-10-65	79	7.3	40486	785 39.17 7	994 81.75 15	9850 428.28 77	164 4.19 1	0	169 2.77 1	7309 152.17 27	14125 398.33 72	21 0.34	2.9	7.80	--	34980 33342	6051
7-12-65	86	7.4	43085	820 40.92 7	1013 83.31 15	9900 430.45 77	172 4.40 1	0	173 2.84 1	7471 155.55 28	14320 403.82 72	21 0.34	3.2	8.00	--	35427 33813	6216
9- 6-65	88	7.9	42200	800 39.92 7	1068 87.83 15	10150 441.32 77	174 4.45 1	0	183 3.00 1	7692 160.15 28	14500 408.90 71	7 0.11	3.6	9.20	--	35740 34494	6393

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number					COLORADO RIVER			54			
NEAR TOPOCK, ARIZONA											
5-17-65 1520	18.19 11,360	7.4	2.3 5				< 25		9.2	99	DWR
	Clear; no odor.										
9-16-65 1645	-- 12,000	7.4	23 62				< 25		9.8	109	DWR
	Clear; aux gage discontinued.										

TABLE D-2
ANALYSES OF SURFACE WATER
COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

TABLE 5-2

ANALYSES OF SURFACE WATER

COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C Evap 105°C Computed	Total hardness as $CaCO_3$
Stream name and station number																	
NEAR TOPOCK, ARIZONA				COLORADO RIVER							54						
	66	8.1	1233	98	31	119	5	0	154	342	110	2	0.7	0.18	--	830	372
5-17-65				4.89	2.55	5.17	0.13		2.52	7.12	3.10	0.03					
				38	20	41	1		20	56	24					784	
	70	7.4	1243	94	34	120	5	0	159	334	113	2	0.6	0.18	--	836	375
9-16-65				4.69	2.80	5.22	0.13		2.61	6.95	3.19	0.03					
				37	22	41	1		20	54	25					781	

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number COLORADO RIVER 36D AT AQUEDUCT INTAKE											
10-6-64 1020	-- --	--	-- --				0.7		--	--	MWD
	Total alkalinity as ($Ca CO_3$) = 111 ppm: free CO_2 = 1 ppm.										
11-3-64 --	-- --	--	-- --				0.3		--	--	MWD
	Total alkalinity as ($Ca CO_3$) = 117 ppm: free CO_2 = 2 ppm.										
12-1-64 --	-- --	--	-- --				--		--	--	MWD
	Total alkalinity as ($Ca CO_3$) = 118 ppm: free CO_2 = 2ppm.										
1-5-65 1015	-- --	--	-- --				0.6		--	--	MWD
	Total alkalinity as ($Ca CO_3$) = 122 ppm: free CO_2 = 3ppm.										
2-23-65 --	-- --	--	-- --				--		--	--	MWD
	Total alkalinity as ($Ca CO_3$) = 121 ppm; free CO_2 = 2 ppm.										
4-6-65 --	-- --	--	-- --				0.8		--	--	MWD
	Total alkalinity as ($Ca CO_3$) = 123 ppm; free CO_2 = 1ppm.										
5-27-65 1005	-- --	--	-- --				0.3		--	--	MWD
	Total alkalinity as ($Ca CO_3$) = 123 ppm; free CO_2 = 2 ppm.										
6-15-65 0930	-- --	--	-- --				0.5		--	--	MWD
	Total alkalinity as ($Ca CO_3$) = 114 ppm; free CO_2 = 0 ppm.										

COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C Evap 105°C Computed	Total hardness as $CaCO_3$
Stream name and station number																	
AT AQUEDUCT INTAKE				COLORADO RIVER							56D						
10- 6-64	77	8.4	1090	82 4.09 37	30 2.47 22	104 4.52 40	4 0.10 1	4 0.13 1	128 2.10 19	303 6.31 56	96 2.71 24	0.5 0.01	0.4	--	12	700 699	328
11- 3-64	71	8.1	1100	87 4.34 38	31 2.55 22	100 4.35 38	4 0.10 1	0	143 2.34 21	299 6.23 55	96 2.71 24	0.9 0.01	0.4	--	10	700 699	345
12- 1-64	59	8.2	1090	88 4.39 38	31 2.55 22	106 4.61 39	5 0.13 1	0	144 2.36 20	309 6.43 55	99 2.79 24	1.5 0.02	0.4	--	12	723 723	347
1- 5-65	52	7.9	1150	90 4.49 39	31 2.55 22	102 4.43 38	5 0.13 1	0	149 2.44 21	307 6.39 55	99 2.79 24	1.2 0.02	0.4	--	11	720 720	352
2-23-65	53	8.2	1170	90 4.49 38	31 2.55 22	104 4.52 39	5 0.13 1	0	148 2.43 21	309 6.43 55	101 2.85 24	1.3 0.02	0.4	--	11	726 725	352
4- 6-65	61	--	1180	93 4.64 38	32 2.63 22	108 4.70 39	5 0.13 1	0	150 2.46 20	320 6.66 55	104 2.93 24	1.5 0.02	0.4	--	--	746 738	364
5-27-65	71	8.1	1230	96 4.79 38	33 2.71 22	112 4.87 39	6 0.15 1	0	150 2.46 20	339 7.06 56	108 3.05 24	1.0 0.02	0.4	--	11	781 780	375
6-15-65	72	8.4	1240	95 4.74 38	34 2.80 22	111 4.83 39	5 0.13 1	0	139 2.28 18	340 7.08 57	110 3.10 25	0.9 0.01	0.4	--	10	776 775	377

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number				COLORADO RIVER 56D							
AT AQUEDUCT INTAKE											
7-6-65	--	--	--				0.4		--	--	MWD
0835	--		--								
	Total alkalinity as ($CaCO_3$) = 107 ppm; free CO_2 = 1 ppm.										
8-3-65	--	--	--				0.7		--	--	MWD
--	--		--								
	Total alkalinity as $CaCO_3$) = 108 ppm; free CO_2 = 1 ppm.										
9-8-65	--	--	--				1.1		--	--	MWD
--	--		--								
	Total alkalinity as $CaCO_3$ = 109 ppm; free CO_2 = 1 ppm.										

COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C Evap 105°C Computed	Total hardness as $CaCO_3$
Stream name and station number																	
AT AQUEDUCT INTAKE				COLORADO RIVER							56D						
	--	8.4	1250	92	34	116	6	1	128	344	115	1.0	0.4	--	11	784	370
7- 6-65				4.59	2.80	5.04	0.15	0.03	2.10	7.16	3.24	0.02					
				36	22	40	1		17	57	26					783	
	81	8.3	1240	92	33	116	5	0	132	343	114	0.9	0.4	--	11	781	365
8- 3-65				4.59	2.71	5.04	0.13		2.16	7.14	3.21	0.01					
				37	22	40	1		17	57	26					780	
	82	8.3	1240	90	34	116	5	1	131	334	116	0.9	0.5	--	8	771	365
9- 8-65				4.49	2.80	5.04	0.13	0.03	2.15	6.95	3.27	0.01					
				36	22	40	1		17	56	26					770	

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number					COLORADO RIVER			55			
BELOW PARKER DAM											
5-18-65 1030	19.64 8,930	7.5	1.3 2.3				< 25		7.8	87	DWR
	Clear.										
9-14-65 1100	19.88 8,280	7.4	2.3 6				< 25		8.4	.99	DWR
	Clear: river rice growing in water.										

COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactance value									Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C Evap 105°C Computed	Total hardness as $CaCO_3$
Stream name and station number																	
BELOW PARKER DAM				COLORADO RIVER 55													
5-18-65	70	8.0	1215	92 4.59 36	34 2.80 22	119 5.17 41	5 0.13 1	0	151 2.47 19	342 7.12 56	108 3.05 24	2 0.03	0.6	0.18	--	820 777	370
9-14-65	76	7.8	1243	93 4.64 36	34 2.80 22	122 5.30 41	6 0.15 1	0	156 2.56 20	335 6.97 55	114 3.21 25	2 0.03	0.6	0.17	--	840 783	372

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number NEAR BLYTHE				COLORADO RIVER				56C			
5-18-65 0830	-- 9,790	7.6	< 4.5 < 4.5				< 25		9.0	105	DWR
	Clear.										
9-13-65 1615	-- 10,000	7.5	60 60				< 25		8.8	107	DWR
	Clear; swimmers and skiers in water.										

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C Evap 105°C Computed	Total hardness as $CaCO_3$
Stream name and station number																	
NEAR BLYTHE				COLORADO RIVER							56C						
	75	8.0	1257	97	33	121	6	0	156	339	113	2	0.4	0.16	--	855	378
5-18-65				4.84	2.71	5.26	0.15		2.56	7.06	3.19	0.03					
				37	21	41	1		20	55	25					788	
	79	7.8	1268	95	35	126	6	0	157	345	119	1	0.6	0.17	--	870	381
9-13-65				4.74	2.88	5.48	0.15		2.57	7.18	3.36	0.02					
				36	22	41	1		20	55	26					805	

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number AT YUMA, ARIZONA					COLORADO RIVER			56			
11-10-64 1145	110.79 700	7.6	6.2 24				<25		8.4	91	DWR
	Clear.										
1-12-65 1340	110.80 706	7.6	2.3 .45				<25		8.6	88	DWR
	Vegetation throughout river.										
3- 9-65 1215	110.85 778	7.4	24 62				<25		9.0	97	DWR
	Clear; low flow.										
5-11-65 1100	113.58 1810	7.5	24 24				30		7.8	89	DWR
	Slightly turbid; no odor.										
7-13-65 0735	112.62 898	7.4	6.2 62				35		8.4	103	DWR
	Slightly turbid.										
9- 8-65 0925	112.82 905	7.4	62 62				<25		8.0	96	DWR
	Clear.										

TABLE D-2

ANALYSES OF SURFACE WATER

COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C / Evap 105°C / Computed	Total hardness as $CaCO_3$
Stream name and station number																	
AT YUMA, ARIZONA				COLORADO RIVER 56													
11-10-64	67	7.9	5379	249 12.43 22	113 9.29 16	800 34.78 61	9 0.23	0	279 4.57 8	711 14.80 26	1317 37.14 65	22 0.35 1	1.6	1.10	24	3606 3385	1087
1-12-65	62	8.0	3762	199 9.93 26	77 6.33 16	510 22.17 57	8 0.20 1	0	269 4.41 11	555 11.56 30	803 22.64 59	5 0.08	0.8	0.74	--	2410 2291	814
3- 9-65	67	7.8	4482	233 11.63 25	93 7.65 16	628 27.31 58	8 0.20	0	272 4.46 9	638 13.28 28	1035 29.19 62	22 0.35 1	1.4	0.92	--	3050 2793	965
5-11-65	72	7.7	1416	101 5.04 34	35 2.88 20	152 6.61 45	6 0.15 1	0	173 2.84 19	373 7.77 53	143 4.03 27	2 0.03	0.8	0.22	--	950 898	396
7-13-65	80	7.6	3425	177 8.83 25	74 6.09 17	475 20.65 58	8 0.20 1	0	244 4.00 11	572 11.91 33	708 19.97 55	10 0.16	1.1	0.72	--	2240 2146	747
9- 8-65	77	7.9	2574	149 7.44 28	60 4.93 19	315 13.70 52	7 0.18 1	0	244 4.00 15	474 9.87 37	440 12.41 47	3 0.05	0.8	0.48	--	1670 1569	619

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

Date Time Remarks	Gage ht.(ft) Flow (cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number BELOW MORELOS DAM				COLORADO RIVER				56B			
11-10-64 1100	101.87 850 est	7.9	620 2,400				< 25		7.8	86	DWR
	Clear; large flow.										
1-12-65 1455	98.13 35	7.6	130 62				< 25		8.8	90	DWR
	Slightly turbid; jumping fish.										
3-9-65 1440	97.95 15.6	7.2	2,400 240				< 25		11.2	125	DWR
	Water ponded where sample was taken.										
5-11-65 1140	98.11 21.2	7.5	620 130				< 25		7.0	83	DWR
	Clear; fish; banks cleared.										
7-13-65 0830	98.40 20.4	7.3	240 240				30		8.2	98	DWR
	Slightly turbid taken from bank: no current										
9- 7-65 1740	99.00 16.00	7.7	62 62				< 25		9.4	120	DWR
	Clear: many ducks.										

ANALYSES OF SURFACE WATER

COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C / Evap 105°C Computed	Total hardness as $CaCO_3$
Stream name and station number																	
BELOW MORELOS DAM				COLORADO RIVER						56B							
	69	7.9	4646	226	98	663	8	0	275	642	1090	23	1.4	0.94	25	3124	968
11-10-64				11.28	8.06	28.83	0.20		4.51	13.37	30.74	0.37					
				23	17	60			9	27	63	1				2913	
	62	7.9	2245	146	52	272	6	0	248	456	343	3	0.9	0.37	--	1465	579
1-12-65				7.29	4.28	11.83	0.15		4.06	9.49	9.67	0.05					
				31	18	50	1		17	41	42					1401	
	70	8.0	2155	144	50	240	5	0	227	411	336	2	0.8	0.33	--	1430	565
3- 9-65				7.19	4.11	10.44	0.13		3.72	8.56	9.48	0.03					
				33	19	48	1		17	39	44					1301	
	76	7.6	2037	136	51	238	6	0	239	461	282	5	0.8	0.36	--	1365	549
5-11-65				6.79	4.19	10.35	0.15		3.92	9.60	7.95	0.08					
				32	20	48	1		18	45	37					1298	
	77	7.7	2083	136	49	258	7	0	222	461	313	10	0.7	0.36	--	1450	541
7-13-65				6.79	4.03	11.22	0.18		3.64	9.60	8.83	0.16					
				31	18	50	1		16	43	40	1				1344	
	84	7.9	1887	136	53	265	6	0	237	477	318	5	0.8	0.34	--	1400	558
9- 7-65				6.79	4.36	11.52	0.15		3.88	9.93	8.97	0.08					
				30	19	50	1		17	43	39					1378	

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

Date Time Remarks	Gage ht.(ft) Flow (cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number											
NEAR PILOT KNOB				ALL AMERICAN CANAL			56A				
11-10-64 1135	17.26 8,300 Clear.	7.6	2.3 2.3				<25		8.4	91	DWR
1-12-65 1135	167.18 3,590 Clear.	7.7	2.3 <0.45				<25		8.2	73	DWR
3-9-65 1045	167.41 6,380 Clear.	7.3	2.3 <0.45				<25		8.0	79	DWR
5-11-65 1230	167.33 5,060 Clear.	7.5	24 <0.45				<25		8.4	94	DWR
7-13-65 0700	167.39 8,730 Clear.	7.5	0.6 <0.45				<25		8.6	108	DWR
9-7-76 1500	167.22 6,357 Clear.	7.5	6.2 6.2				<25		8.8	110	DWR

COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C / Evap 105°C / Computed	Total hardness as $CaCO_3$
Stream name and station number																	
NEAR PILOT KNOB						ALL AMERICAN CANAL					56A						
11-10-64	65	8.1	1387	96 4.79 34	35 2.88 20	148 6.44 45	5 0.13 1	0	173 2.84 20	341 7.10 50	148 4.17 29	2 0.03	0.7	0.20	14	930 875	384
1-12-65	51	8.1	1469	104 5.19 34	34 2.80 18	162 7.04 46	5 0.13 1	0	186 3.05 20	357 7.43 49	163 4.60 30	1 0.02	0.7	0.23	--	942 918	400
3- 9-65	59	8.1	1350	100 4.99 36	33 2.71 20	136 5.91 43	5 0.13 1	0	169 2.77 20	341 7.10 52	136 3.84 28	2 0.03	0.6	0.20	--	898 837	385
5-11-65	70	7.9	1368	99 4.94 35	34 2.80 20	147 6.39 45	6 0.15 1	0	168 2.75 19	363 7.56 53	138 3.89 27	2 0.03	0.8	0.22	--	925 873	387
7-13-65	82	7.8	1391	101 5.04 35	36 2.96 21	144 6.26 43	6 0.15 1	0	165 2.70 19	363 7.56 53	140 3.95 28	1 0.02	0.9	0.21	--	929 873	400
9- 7-65	82	7.7	1446	101 5.04 34	37 3.04 20	154 6.70 45	6 0.15 1	0	173 2.84 19	367 7.64 52	150 4.23 29	2 0.03	0.5	0.21	--	945 903	404

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number				ALAMO RIVER 59							
AT INTERNATIONAL BOUNDARY											
11-10-64 1250	0.26 1.79	7.6	62 24				130		9.4	99	DWR
	Clear; small fish.										
1-12-65 0930	0.39 3.03	7.6	6.2 62	0.18	0.08		190		7.8	68	DWR
	Slightly turbid; foam.										
3-10-65 0920	0.37 3.03	7.4	62 24				<25		9.6	99	DWR
	Clear.										
5-11-65 1345	0.36 2.91	7.3	620 2,400				50		8.8	106	DWR
	Clear; small fish.										
7-13-65 1045	0.38 3.15	7.3	24 24				45		9.0	113	DWR
	Clear; sewage odor; many clams in stream.										
9-7 -65 1240	0.32 2.44	7.3	24 62				<25		8.2	99	DWR
	Clear.										

COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C Evap 105°C Computed	Total hardness as $CaCO_3$
Stream name and station number																	
AT INTERNATIONAL BOUNDARY				ALAMO RIVER 59													
11-10-64	65	7.7	5546	241 12.03 20	151 12.42 21	816 35.48 59	11 0.28	0	345 5.65 9	1052 21.90 36	1157 32.63 54	22 0.35 1	0.9	1.46	22	3845 3644	1223
1-12-65	49	7.7	3648	179 8.93 23	86 7.07 18	510 22.17 58	8 0.20 1	0	300 4.92 13	705 14.68 38	677 19.09 49	19 0.31 1	0.8	0.98	--	2525 2333	801
3-10-65	63	7.6	3745	166 8.28 20	106 8.72 21	550 23.91 58	9 0.23 1	0	298 4.88 12	781 16.26 40	690 19.46 48	10 0.16	1.0	1.00	--	2570 2461	851
5-11-65	78	7.2	4890	203 10.13 20	114 9.38 18	736 32.00 62	12 0.31 1	0	330 5.41 10	937 19.51 37	950 26.79 51	24 0.39 1	1.0	1.65	--	3314 3141	976
7-13-65	82	7.7	5942	242 12.08 19	147 12.09 19	928 40.35 62	12 0.31	0	322 5.28 8	1171 24.38 38	1220 34.40 54	5 0.08	0.6	1.90	--	4128 3886	1209
9- 7-65	78	7.6	5525	237 11.83 19	144 11.84 19	860 37.39 61	13 0.33 1	0	342 5.61 9	1131 23.55 38	1140 32.15 52	10 0.16	1.1	1.80	--	3860 3706	1184

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number				ALAMO RIVER			60				
NEAR CALIPATRIA											
11-9-64 1630	769.49 795	7.5	2,400 2,400				380		8.0	86	DWR
	Turbid; rough water; high winds.										
1-11-65 1710	768.75 459	7.6	62 240				260		9.8	89	DWR
	Turbid.										
3- 8-65 1720	769.56 823	7.6	24,000 2,400				300		10.2	105	DWR
	Slightly turbid.										
5-10-65 1630	769.56 757	7.3	620 620				325		8.6	101	DWR
	Turbid.										
7-12-65 1215	769.62 875	7.4	620 240				330		7.8	98	DWR
	Turbid.										
9- 6-65 1745	769.47 861	7.4	62 62				420		8.6	108	DWR
	Turbid; many mosquitos.										

COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C / Evap 105°C / Computed	Total hardness as $CaCO_3$
Stream name and station number NEAR CALIPATRIA						ALAMO RIVER					60						
11- 9-64	66	7.7	4082	207 10.33 23	118 9.70 22	563 24.48 55	11 0.28 1	0	236 3.87 9	851 17.72 40	790 22.28 50	43 0.69 2	1.0	0.66	13	2853 2714	1002
1-11-65	52	7.6	5195	250 12.48 22	147 12.09 22	716 31.13 56	11 0.28 1	0	260 4.26 8	971 20.22 36	1101 31.05 55	43 0.69 1	0.9	0.84	--	3550 3369	1229
3- 8-65	63	7.2	4049	188 9.38 21	130 10.69 24	555 24.13 54	12 0.31 1	0	215 3.52 8	864 17.99 40	790 22.28 50	40 0.65 1	1.0	0.60	--	2810 2686	1004
5-10-65	76	7.4	4029	201 10.03 23	113 9.29 22	534 23.22 54	14 0.36 1	0	237 3.88 9	830 17.28 41	740 20.87 49	37 0.60 1	0.8	0.56	--	2748 2587	967
7-12-65	82	7.4	3784	196 9.78 24	107 8.80 22	500 21.74 53	13 0.33 1	0	218 3.57 9	801 16.68 41	698 19.68 49	20 0.32 1	0.9	0.58	--	2580 2444	930
9- 6-65	82	7.6	4270	206 10.28 22	120 9.87 22	580 25.22 55	14 0.36 1	0	227 3.72 8	872 18.16 40	820 23.12 51	17 0.27 1	0.9	0.72	--	2895 2742	1008

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

Date Time Remarks	Gage ht.(ft) Flow (cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number				NEW RIVER				57			
AT INTERNATIONAL BOUNDARY											
11-10-64 1350	958.61 117	7.8	62,000 620,000				140		7.6	83	DWR
	Turbid; raw sewage; sewage odor.										
1-12-65 1045	958.72 126	7.8	24,000 240,000				130		6.8	63	DWR
	Turbid.										
3-10-65 1140	959.04 151	7.5	620,000 620,000				190		7.8	84	DWR
	Turbid; raw sewage.										
5-11-65 1415	958.67 130	7.5	240,000 210,000				130		7.8	87	DWR
	Turbid; raw sewage in river.										
7-13-65 1130	958.85 148	7.4	240,000 62,000			4.	100		6.0	79	DWR
	Turbid; raw sewage; sewage odor.										
9-7-65 1145	959.30 193	7.3	24,000 24,000				50		8.4	105	DWR
	Turbid; raw domestic sewage; strong sewage odor.										

COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C / Evap 105°C / Computed	Total hardness as $CaCO_3$
Stream name and station number AT INTERNATIONAL BOUNDARY				NEW RIVER							57						
11-10-64	68	7.3	7698	232 11.58 15	116 9.54 12	1272 55.31 70	86 2.20 3	0	267 4.38 6	652 13.57 17	2130 60.07 77	16 0.26	0.8	2.00	27	4880 4665	1057
1-12-65	54	7.2	8921	266 13.27 15	107 8.80 10	1500 65.22 72	124 3.17 4	0	286 4.69 5	645 13.43 15	2600 73.32 80	13 0.21	1.1	2.55	--	5675 5399	1104
3-10-65	66	7.3	7013	237 11.83 17	106 8.72 12	1125 48.92 68	83 2.12 3	0	272 4.46 6	659 13.72 19	1866 52.62 74	29 0.47 1	0.9	1.75	--	4532 4241	1028
5-11-65	70	7.0	8078	251 12.52 15	136 11.18 14	1296 56.35 69	77 1.97 2	0	209 3.43 4	802 16.70 20	2158 60.86 75	31 0.50 1	1.0	2.00	--	5170 4857	1186
7-13-65	86	7.0	7194	247 12.33 16	133 10.94 14	1200 52.18 68	60 1.53 2	0	271 4.44 6	860 17.91 24	1900 53.58 70	15 0.24	1.0	1.90	--	4750 4551	1164
9- 7-65	81	7.3	7634	264 13.17 16	145 11.92 15	1240 53.92 67	74 1.89 2	0	290 4.75 6	876 18.24 23	2040 57.53 71	12 0.19	1.8	2.00	--	6060 4797	1256

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number						NEW RIVER		58			
NEAR WESTMORLAND											
11-9-64 1710	772.98 413 Turbid.	7.4	62,000 24,000				300		8.2	90	DWR
1-11-65 1745	773.02 384 Turbid.	7.5	620 2,400				380		8.6	80	DWR
3-8-65 1750	773.20 511 Turbid.	7.2	6,200 2,400				650		9.2	97	DWR
5-10-65 1700	772.85 511 Turbid.	7.4	24,000 2,400				325		8.4	99	DWR
7-12-65 1255	773.04 525	7.3	240 620				220		7.4	94	DWR
9-6-65 1830	773.22 563 Slightly turbid.	7.4	2,400 2,400				250		8.0	103	DWR

TABLE D-2
ANALYSES OF SURFACE WATER

TABLE D 2

ANALYSES OF SURFACE WATER

COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C / Evap 105°C / Computed	Total hardness as $CaCO_3$
Stream name and station number																	
NEAR WESTMORLAND						NEW RIVER					58						
11- 9-64	68	7.7	6427	249 12.43 19	128 10.53 16	980 42.61 64	30 0.77 1	0	289 4.74 7	855 17.80 27	1545 43.57 65	32 0.52 1	1.0	1.40	21	4170 3985	1149
1-11-65	54	7.4	6911	263 13.12 18	121 9.95 14	1100 47.83 66	44 1.13 2	0	284 4.65 6	811 16.89 23	1770 49.91 69	36 0.58 1	1.1	1.85	--	4465 4288	1154
3- 8-65	65	7.4	5695	242 12.08 20	112 9.21 16	850 36.96 63	32 0.82 1	0	266 4.36 7	783 16.30 27	1365 38.49 64	37 0.60 1	0.9	1.24	--	3790 3554	1065
5-10-65	76	7.3	5450	234 11.68 21	107 8.80 16	808 35.13 62	26 0.66 1	0	259 4.25 8	780 16.24 29	1230 34.69 62	42 0.68 1	0.7	1.10	--	3518 3356	1025
7-12-65	83	7.4	5568	231 11.53 21	116 9.54 17	792 34.44 61	26 0.66 1	0	251 4.11 7	814 16.95 30	1265 35.67 63	15 0.24	0.9	1.20	--	3625 3385	1054
9- 6-65	84	7.5	5714	235 11.73 20	117 9.62 16	865 37.61 63	30 0.77 1	0	273 4.47 7	845 17.59 29	1330 37.51 63	20 0.32 1	1.0	1.30	--	3690 3579	1068

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

SANTA ANA DRAINAGE PROVINCE (Y)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number: SANTA ANA RIVER 51B											
NEAR MENTONE											
10-5-64 1450	None 15	7.7	6.2 13				< 25		9.4	95	DWR
	Clear.										
11-4-64 1615	None 15	7.6	2.3 6.2				< 25		9.0	84	DWR
	Clear; low flow.										
12-3-64 1400	None 15	7.6	23 6.2				< 25		8.4	71	DWR
	Clear.										
1-19-65 1010	None 15	7.7	6.2 0.6				< 25		10	88	DWR
	Clear.										
2-5-65 1050	None 18	7.6	0.46 2.3				< 25		9.4	82	DWR
	Clear.										
3-3-65 1440	None 18	7.6	1.3 0.6				< 25		10.2	87	DWR
	Clear.										
4-7-65 1550	None 36 est.	7.6	130 240				60		9.4	80	DWR
	Clear.										
5-5-65 1930	None 36	7.6	< 4.5 62				< 25		10.0	93	DWR
	Clear.										

TABLE D-2

ANALYSES OF SURFACE WATER

SANTA ANA DRAINAGE PROVINCE (Y)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactance value									Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C Evap 105°C Computed	Total hardness as $CaCO_3$
Stream name and station number																	
NEAR MENTONE						SANTA ANA RIVER					518						
10- 5-64	61	7.5	276	31 1.55 54	7 0.58 20	16 0.70 24	2 0.05 2	0	144 2.36 81	16 0.33 11	8 0.23 8	0	0.5	0.06	15	180 166	107
11- 4-64	54	7.9	268	28 1.40 51	6 0.49 18	18 0.78 29	2 0.05 2	0	132 2.16 78	21 0.44 16	5 0.14 5	1 0.02 1	0.6	0.07	18	154 165	95
12- 3-64	47	8.0	254	28 1.40 56	4 0.33 13	17 0.74 29	2 0.05 2	0	124 2.03 79	17 0.35 14	6 0.17 7	0.4 0.01	0.6	0.06	22	140 158	87
1-19-65	49	8.0	256	29 1.45 54	5 0.41 15	18 0.78 29	2 0.05 2	0	132 2.16 81	16 0.33 12	6 0.17 6	0	0.5	0.06	--	125 141	93
2- 5-65	49	8.0	278	31 1.55 55	5 0.41 14	19 0.83 29	2 0.05 2	0	139 2.28 81	20 0.42 15	4 0.11 4	1 0.02 1	0.6	0.05	--	170 151	98
3- 3-65	47	8.0	263	27 1.35 48	7 0.58 21	19 0.83 30	2 0.05 2	0	137 2.25 81	18 0.37 13	5 0.14 5	1 0.02 1	0.6	0.04	--	110 147	97
4- 7-65	47	8.0	241	27 1.35 56	5 0.41 17	14 0.61 25	2 0.05 2	0	117 1.92 82	14 0.29 12	3 0.08 3	3 0.05 2	0.6	0.04	--	145 126	88
5- 5-65	54	7.9	191	21 1.05 56	4 0.33 17	11 0.48 25	1 0.03 2	0	93 1.52 81	10 0.21 11	5 0.14 7	0	0.5	0.02	--	110 98	69

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

SANTA ANA DRAINAGE PROVINCE (Y)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number					SANTA ANA RIVER			51B			
NEAR MENTONE											
6-3-65 1545	None 23	7.6	23 23				<25		9.6	113	DWR
	Clear.										
7-7-65 1745	None 15	--	2.3 2.3				<25		8.8	93	DWR
	Clear; Lithium = 0.1 ppm										
8-4-65 2015	None 15	7.6	62 700				<25		8.2	86	DWR
	Clear; Lithium = 0.0 ppm.										
9-21-65 1020	None 15	7.5	<0.45 <0.45				<25		9.0	119	DWR
	Clear.										

TABLE D 2

ANALYSES OF SURFACE WATER

SANTA ANA DRAINAGE PROVINCE (Y)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactance value									Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C Evap 105°C Computed	Total hardness as $CaCO_3$
Stream name and station number																	
NEAR MENTONE						SANTA ANA RIVER					51B						
6- 3-65	54	7.8	209	24 1.20 57	4 0.33 16	12 0.52 25	2 0.05 2	0	108 1.77 83	12 0.25 12	4 0.11 5	0	0.4	0.04	--	130 112	77
7- 7-65	65	8.0	253	26 1.30 54	4 0.33 14	17 0.74 31	2 0.05 2	0	122 2.00 81	16 0.33 13	4 0.11 4	1 0.02 1	0.5	0.08	--	155 130	82
8- 4-65	64	7.8	242	27 1.35 54	4 0.33 13	18 0.78 31	2 0.05 2	0	124 2.03 82	17 0.35 14	3 0.08 3	2 0.03 1	0.6	0.06	--	150 135	84
9-21-65	87	7.9	217	22 1.10 47	6 0.49 21	16 0.70 30	2 0.05 2	0	116 1.90 80	15 0.31 13	6 0.17 7	0	0.5	0.04	--	130 125	80

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

SANTA ANA DRAINAGE PROVINCE (Y)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number			SAN TIMOTEO CREEK 51G								
NEAR LOMA LINDA											
10-6-64 0830	2.32 0.8 Clear.	7.5	2,300 620	26	2.48		25		7.4	89	DWR
11-5-64 1430	2.34 1.0 Clear.	7.6	2,300 1,300	29	3.1	10	25		5.8	71	DWR
12-4-64 0900	2.18 1.2 Clear; foam; floating vegetation throughout stream.	7.4	620 200	26	4.0	19	25		9.4	97	DWR
1-20-65 1200	1.86 1.6 Clear; some foam.	7.9	230 620	29	3.2	23	25		8.8	95	DWR
2-5-65 1145	1.85 4.1 Clear; some foam.	7.8	230 230	27	2.5	22	25		8.2	86	DWR
3-4-65 1130	2.06 4.5 Slightly turbid; little foam.	7.7	230 620	20	2.2	20	50		8.8	96	DWR
4-2-65 1645	2.83 40 est Very turbid.	7.6	-- --				--		--	--	DWR
4-8-65 0930	1.81 3.3 Turbid; raining.	7.6	23 23	9	1.16		1100		9.8	93	DWR

TABLE 3-E

ANALYSES OF SURFACE WATER

SANTA ANA DRAINAGE PROVINCE (Y)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C / Evap 105°C / Computed	Total hardness as $CaCO_3$
Stream name and station number																	
NEAR LOMA LINDA						SAN TIMOTEO CREEK					51G						
	78	7.6	979	61	28	110	11	0	321	94	79	55	1.2	0.42	27	620	267
10- 6-64				3.04	2.30	4.78	0.28		5.26	1.96	2.23	0.89					
				29	22	46	3		51	19	22	9				624	
	79	7.4	1023	40	26	118	12	0	311	94	74	44	1.6	0.47	28	580	207
11- 5-64				2.00	2.14	5.13	0.31		5.10	1.96	2.09	0.71					
				21	22	54	3		52	20	21	7				591	
	63	7.6	1048	49	26	116	12	0	396	87	84	16	2.0	0.54	32	588	230
12- 4-64				2.45	2.14	5.04	0.31		6.49	1.81	2.37	0.26					
				25	22	51	3		59	17	22	2				619	
	67	7.8	1079	61	20	117	13	0	401	87	92	29	1.4	0.30	--	580	234
1-20-65				3.04	1.64	5.09	0.33		6.57	1.81	2.59	0.47					
				30	16	50	3		57	16	23	4				618	
	64	7.6	1021	53	21	112	11	0	375	74	91	19	1.4	0.56	--	540	219
2- 5-65				2.64	1.73	4.87	0.28		6.15	1.54	2.57	0.31					
				28	18	51	3		58	15	24	3				567	
	68	7.9	841	48	14	90	10	0	329	68	61	12	1.4	0.27	--	440	178
3- 4-65				2.40	1.15	3.91	0.26		5.39	1.42	1.72	0.19					
				31	15	51	3		62	16	20	2				466	
	56	7.6	320	41	2	19	16	0	136	38	18	3	0.4	0.44	--	252	111
4- 2-65				2.05	0.16	0.83	0.41		2.23	0.79	0.51	0.05					
				59	5	24	12		62	22	14	1				205	
	56	7.1	526	30	10	61	7	0	156	54	38	11	0.9	0.17	--	328	116
4- 8-65				1.50	0.82	2.65	0.18		2.56	1.12	1.07	0.18					
				29	16	51	3		52	23	22	4				289	

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

SANTA ANA DRAINAGE PROVINCE (Y)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number				SAN TIMOTEO CREEK				51G			
NEAR LOMA LINDA											
5-6-65 0715	1.62 0.7	7.6	6.2 23	20	2.0		30		8.6	80	DWR
	Slightly turbid; some foam.										
6-4-65 1230	1.70 1.3	7.8	130 130	25	4.7		60		8.0	96	DWR
	Slightly turbid; little foam; sewage odor.										
7-8-65 1120	1.71 1.0	7.6	620 230	22	1.3		< 25		7.8	99	DWR
	Clear; little foam; much loose green algae throughout; lithium = 0.1 ppm.										
8-5-65 1045	1.70 1.2	7.7	7,000 7,000	34	1.2		< 25		8.4	104	DWR
	Clear; foam; loose algae in water; lithium = 0.0 ppm.										
9-23-65 0945	1.80 2.4		23 62	13	0.92		300		8.0	90	DWR
	Slightly turbid; some foam; recent high flow.										

TABLE 5-E

ANALYSES OF SURFACE WATER

SANTA ANA DRAINAGE PROVINCE (Y)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C	TDS Evap 105°C	TDS Computed	Total hardness as $CaCO_3$
Stream name and station number																			
NEAR LOMA LINDA				SAN TIMOTEO CREEK							51G								
5- 6-65	60	7.2	956	57	16	118	11	0	278	82	88	50	1.5	0.74	--			665	208
				2.84	1.32	5.13	0.28		4.56	1.71	2.48	0.81							
				30	14	54	3		48	18	26	8						561	
6- 4-65	78	7.6	1101	40	23	134	12	0	410	80	91	12	1.5	0.62	--			625	195
				2.00	1.89	5.83	0.31		6.72	1.67	2.57	0.19							
				20	19	58	3		60	15	23	2						596	
7- 8-65	83	7.6	1026	54	19	129	13	0	329	88	100	46	1.3	0.40	--			630	213
				2.69	1.56	5.61	0.33		5.39	1.83	2.82	0.74							
				26	15	55	3		50	17	26	7						612	
8- 5-65	80	7.5	864	59	18	103	10	0	327	78	69	12	1.4	0.31	--			520	221
				2.94	1.48	4.48	0.26		5.36	1.62	1.95	0.19							
				32	16	49	3		59	18	21	2						511	
9-23-65	71	7.7	757	47	18	85	12	0	265	64	57	37	1.0	0.24	--			470	192
				2.35	1.48	3.70	0.31		4.34	1.33	1.61	0.60							
				30	19	47	4		55	17	20	8						452	

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

SANTA ANA DRAINAGE PROVINCE (Y)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number				WARM CREEK			50B				
AT COLTON											
10-6-64 0935	None 8 est. Clear.	7.2	620 2,300	30	2.7		<25		8.2	84	DWR
11-5-64 1345	None 10 est. Clear; small particles.	7.3	230 6,200	31	3.1	15 0.81 epm.	<25		6.7	77	DWR
12-4-64 0930	None 10 est. Slightly turbid; much silt; some foam.	7.2	6,200 24,000	31	4.4		400		6.6	72	DWR
1-20-65 1230	None 11 est. Slightly turbid; little foam.	7.2	2,300 6,200				250		6.8	75	DWR
2-5-65 1215	None 5 est. Slightly turbid; much silt in stream; some foam.	7.2	62 62	34		8 0.44 epm.	350		7.0	77	DWR
3-4-65 1115	None 6 est. Turbid; little foam.	7.2	62 23	38	5.0	7 0.40 epm.	100		7.2	78	DWR
3-4-65 0750	None --						50		--	--	DWR
4-8-65 0945	None 35 Turbid; raining.	7.3	700 700				1300		10	92	DWR

TABLE D-2

ANALYSES OF SURFACE WATER

SANTA ANA DRAINAGE PROVINCE (Y)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C / Evap 105°C / Computed	Total hardness as $CaCO_3$
Stream name and station number AT COLTON				WARM CREEK 50B													
10- 6-64	79	6.9	964	60 2.99 32	18 1.48 16	107 4.65 49	14 0.36 4	0	192 3.15 34	66 1.37 15	130 3.67 40	66 1.06 11	1.0	0.62	31	610 588	224
11- 5-64	73	7.2	963	53 2.64 29	18 1.48 16	104 4.52 50	13 0.33 4	0	221 3.62 39	68 1.42 15	114 3.21 35	60 0.97 11	1.2	0.44	32	586 572	206
12- 4-64	68	7.2	863	43 2.15 26	19 1.56 19	97 4.22 51	12 0.31 4	0	236 3.87 46	68 1.42 17	93 2.62 31	35 0.56 7	1.1	0.67	40	516 525	186
1-20-65	69	7.3	942	44 2.20 26	20 1.64 19	99 4.30 51	13 0.33 4	0	258 4.23 47	62 1.29 14	103 2.90 32	38 0.61 7	1.3	0.66	--	533 508	192
2- 5-65	68	7.1	851	43 2.15 28	18 1.48 19	89 3.87 50	12 0.31 4	0	214 3.51 43	62 1.29 16	90 2.54 31	51 0.82 10	1.1	0.52	--	523 472	182
3- 4-65	--	7.5	924	52 2.59 31	13 1.07 13	100 4.35 52	13 0.33 4	0	220 3.61 41	62 1.29 15	105 2.96 34	60 0.97 11	1.2	0.53	--	540 515	183
3- 4-65	67	7.3	844	49 2.45 31	13 1.07 13	94 4.09 52	13 0.33 4	0	207 3.39 41	62 1.29 16	87 2.45 30	67 1.08 13	1.1	0.53	--	500 488	176
4- 8-65	53	6.8	89	11 0.55 68	1 0.08 10	3 0.13 16	2 0.05 6	0	34 0.56 68	8 0.17 21	1 0.03 4	4 0.06 7	0.3	0	--	57 47	32

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

SANTA ANA DRAINAGE PROVINCE (Y)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number				WARM CREEK				5CB			
AT COLTON											
5-6-65 0800	None 14 est.	7.2	230 230	38		7 0.40 epm	100		7.4	84	DWR
	Turbid; sewage odor.										
6-4-65 1250	None 6 est.	7.2	620 2,400	33		11 0.60 epm	60		8.4	100	DWR
	Slightly turbid; little foam.										
7-8-65 1030	None 12 est.	7.1	<45 60	38		4 0.24 epm	30		7.0	84	DWR
	Slightly turbid; much silt; little foam; Lithium = 0.1 ppm.										
8-5-65 1020	None 10 est.	7.2	2,100 2,400	34		3 0.18 epm	50		10.4	128	DWR
	Slightly turbid; silt; little foam Lithium = 0.0 ppm.										
9-22-65 1100	None 10 est.	7.3	<4.5 23	33	1.84		50		7.4	88	DWR
	Slightly turbid; little foam.										

TABLE D-2
ANALYSES OF SURFACE WATER

SANTA ANA DRAINAGE PROVINCE (Y)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million equivalents percent reactance value									Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C Evap 105°C Computed	Total hardness as $CaCO_3$
Stream name and station number																	
AT COLTON						WARM CREEK					50B						
	72	7.3	1055	40	23	132	14	0	224	68	154	50	1.7	0.86	--	640	195
5- 6-65				2.00	1.89	5.74	0.36		3.67	1.42	4.34	0.81					
				20	19	57	4		36	14	42	8				594	
	77	7.2	1012	48	21	112	13	0	239	67	132	45	1.3	0.54	--	610	207
6- 4-65				2.40	1.73	4.87	0.33		3.92	1.39	3.72	0.73					
				26	19	52	4		40	14	38	7				557	
	78	7.1	974	64	12	110	14	0	193	74	132	61	1.4	0.64	--	625	209
7- 8-65				3.19	0.99	4.78	0.36		3.16	1.54	3.72	0.98					
				34	11	51	4		34	16	40	10				564	
	80	7.1	798	61	10	92	13	0	217	76	72	51	0.9	0.55	--	510	193
8- 5-65				3.04	0.82	4.00	0.33		3.56	1.58	2.03	0.82					
				37	10	49	4		45	20	25	10				483	
	76	7.1	893	42	21	110	12	0	232	68	112	43	1.0	0.54	--	550	192
9-22-65				2.10	1.73	4.78	0.31		3.80	1.42	3.16	0.69					
				24	19	54	3		42	16	35	8				524	

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

SANTA ANA DRAINAGE PROVINCE (Y)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number SANTA ANA RIVER 51F											
AT COLTON											
10-6-64 1030	4.80 25 Clear; little foam.	7.3	230 620	39	5.1	12	< 25		9.0	113	DWR
11-5-64 1415	4.74 21 Slightly turbid; little foam.	7.3	62 500	23	4.6	19	210		6.8	78	DWR
12-4-64 0950	4.82 18 Slightly turbid; some foam.	7.3	230 230	29	3.9	15	400		7.0	77	DWR
1-20-65 1300	5.27 28 Slightly turbid; some foam.	7.3	620 230	35	5.5	25	65		8.2	91	DWR
2-5-65 1240	5.34 24 Slightly turbid; silt and foam.	7.3	23 6	38	4.2	18	< 25		7.6	83	DWR
3-4-65 1100	5.20 25 Slightly turbid; little foam.	7.2	62 23	35	4.6	19	50		8.8	97	DWR
4-8-65 1000	6.02 141 Turbid; raining.	7.2	700 700	10	1.3	--	1,300		10.2	97	DWR
5-6-65 0815	5.35 6.6 Slightly turbid; sewage odor.	7.3	230 620	35	3.2	6	60		8.0	89	DWR

TABLE D-2
ANALYSES OF SURFACE WATER

SANTA ANA DRAINAGE PROVINCE (Y)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C / Evap 105°C / Computed	Total hardness as $CaCO_3$
Stream name and station number																	
AT COLTON						SANTA ANA RIVER					51F						
	82	7.3	989	44	22	102	15	0	277	81	87	55	1.2	0.62	35	560	201
10- 6-64				2.20	1.81	4.43	0.38		4.54	1.69	2.45	0.89					
				25	21	50	4		47	18	26	9				579	
	73	7.2	955	46	17	95	12	0	256	74	83	50	1.5	0.48	32	522	185
11- 5-64				2.30	1.40	4.13	0.31		4.20	1.54	2.34	0.81					
				28	17	51	4		47	17	26	9				537	
	68	7.4	936	40	20	102	13	0	259	73	94	47	1.6	0.61	39	540	182
12- 4-64				2.00	1.64	4.43	0.33		4.25	1.52	2.65	0.76					
				24	20	53	4		46	17	29	8				558	
	69	7.4	975	54	12	105	14	0	315	84	92	24	1.0	0.60	--	530	184
1-20-65				2.69	0.99	4.57	0.36		5.16	1.75	2.59	0.39					
				31	11	53	4		52	18	26	4				541	
	68	7.2	914	57	9	93	14	0	256	68	83	47	1.0	0.56	--	520	179
2- 5-65				2.84	0.74	4.04	0.36		4.20	1.42	2.34	0.76					
				36	9	51	5		48	16	27	9				498	
	69	7.5	929	50	13	98	14	0	276	69	89	42	1.4	0.54	--	520	179
3- 4-65				2.50	1.07	4.26	0.36		4.52	1.44	2.51	0.68					
				31	13	52	4		49	16	27	7				513	
	56	6.9	319	21	5	30	5	0	72	21	30	20	0.6	0.18	--	190	73
4- 8-65				1.05	0.41	1.30	0.13		1.18	0.44	0.85	0.32					
				36	14	45	4		42	16	30	11				168	
	70	7.1	1060	54	15	130	14	0	212	74	146	50	1.6	0.38	--	630	196
5- 6-65				2.69	1.23	5.65	0.36		3.47	1.54	4.12	0.81					
				27	12	57	4		35	15	41	8				589	

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

SANTA ANA DRAINAGE PROVINCE (Y)

Date Time Remarks	Gage ht.(ft) Flow (cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number				SANTA ANA RIVER				51F			
MT COLTON											
6-4-65 1300	5.82 4	7.2	130 130	32	3.2	23	40		8.4	95	DWR
	Slightly turbid; some foam.										
7-8-65 1055	5.71 28	7.2	230 62	47	2.1	18	45		7.8	96	DWR
	Slightly turbid; much silt; little foam; lithium = 0.1 ppm.										
8-5-65 1000	5.11 7.8	7.2	7,000 62	47	1.8	15	60		8.6	107	DWR
	Slightly turbid; little foam; lithium = 0.0 ppm.										
9-22-65 1135	6.38 34	7.3	23 23	38	1.64	--	400		11.0	132	DWR
	Very turbid due to channel clearing upstream.										

TABLE D-2

ANALYSES OF SURFACE WATER

SANTA ANA DRAINAGE PROVINCE (Y)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C / Evap 105°C / Computed	Total hardness as $CaCO_3$
Stream name and station number																	
AT COLTON				SANTA ANA RIVER								51F					
	82	7.3	1030	40	23	108	14	0	312	69	109	25	1.4	0.56	--	570	195
6- 4-65				2.00	1.89	4.70	0.36		5.11	1.44	3.07	0.40					
				22	21	53	4		51	14	31	4				543	
	80	7.2	978	57	13	108	15	0	271	77	103	42	1.8	0.59	--	590	196
7- 8-65				2.84	1.07	4.70	0.38		4.44	1.60	2.90	0.68					
				32	12	52	4		46	17	30	7				551	
	81	7.3	895	54	12	103	13	0	273	81	79	31	1.4	0.55	--	525	184
8- 5-65				2.69	0.99	4.48	0.33		4.47	1.69	2.23	0.50					
				32	12	53	4		50	19	25	6				509	
	78	7.4	923	40	23	98	13	0	278	74	92	31	1.3	0.54	--	530	195
9-22-65				2.00	1.89	4.26	0.33		4.56	1.54	2.59	0.50					
				24	22	50	4		50	17	28	5				509	

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

SANTA ANA DRAINAGE PROVINCE (Y)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number NEAR ARLINGTON				SANTA ANA RIVER 51							
10-6-64 1130	2.10 17	7.6	60 60	0.12	0.10		< 25		8.2	84	DWR
	Clear.										
11-5-64 1525	2.06 17	7.8	13 62	0.22	0.12		< 25		8.2	89	DWR
	Clear; no foam.										
12-4-64 1030	2.54 28	7.4	230 620	1.8	0.32	6	< 25		7.8	79	DWR
	Clear; very little foam.										
1-20-65 1350	2.45 21	7.5	23 50	0.2	0.05		< 25		9.0	91	DWR
	Clear.										
2-5-65 1315	2.18 20	7.3	62 62	0.66	0.10		< 25		8.2	86	DWR
	Clear; little foam.										
3-4-65 1555	1.94 23	7.4	700 62	0.7	0.14		< 25		8.6	89	DWR
	Clear.										
4-8-65 1050	1.02 130	7.3	620 230	0.6	0.10		110		9.8	99	DWR
	Slightly turbid; raining.										
5-6-65 0845	1.60 23	7.3	6 < 4.5	0.24	0.04		< 25		8.6	90	DWR
	Clear; little foam.										

ANALYSES OF SURFACE WATER

SANTA ANA DRAINAGE PROVINCE (Y)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactance value									Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C Evap 105°C Computed	Total hardness as $CaCO_3$
Stream name and station number																	
NEAR ARLINGTON						SANTA ANA RIVER				51							
	62	7.8	1049	115	26	74	5	0	323	121	100	25	0.7	0.12	25	680	394
10- 6-64				5.74	2.14	3.22	0.13		5.29	2.52	2.82	0.40					
				51	19	29	1		48	23	26	4				651	
	67	8.0	1039	112	26	74	5	0	321	118	100	45	0.7	0.14	27	670	387
11- 5-64				5.59	2.14	3.22	0.13		5.26	2.46	2.82	0.73					
				50	19	29	1		47	22	25	6				666	
	61	7.6	1113	117	24	76	5	0	323	118	103	51	0.7	0.14	27	659	391
12- 4-64				5.84	1.97	3.30	0.13		5.29	2.46	2.90	0.82					
				52	18	29	1		46	21	25	7				681	
	61	7.8	1044	117	24	76	4	0	328	122	104	25	0.6	0.16	--	670	391
1-20-65				5.84	1.97	3.30	0.10		5.38	2.54	2.93	0.40					
				52	18	29	1		48	23	26	4				634	
	64	7.9	1034	118	24	74	5	0	326	122	97	24	0.7	0.18	--	660	393
2- 5-65				5.89	1.97	3.22	0.13		5.34	2.54	2.74	0.39					
				53	18	29	1		49	23	25	4				625	
	63	8.0	1058	116	26	76	5	0	329	123	98	24	1.1	0.12	--	690	397
3- 4-65				5.79	2.14	3.30	0.13		5.39	2.56	2.76	0.39					
				51	19	29	1		49	23	25	4				631	
	61	7.6	979	105	23	68	5	0	294	113	92	19	0.7	0.09	--	641	357
4- 8-65				5.24	1.89	2.96	0.13		4.82	2.35	2.59	0.31					
				51	18	29	1		48	23	26	3				570	
	64	7.8	1078	116	27	77	5	0	332	132	105	21	0.7	0.14	--	710	401
5- 6-65				5.79	2.22	3.35	0.13		5.44	2.75	2.96	0.34					
				50	19	29	1		47	24	26	3				647	

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

SANTA ANA DRAINAGE PROVINCE (Y)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number				SANTA ANA RIVER 51							
NEAR ARLINGTON											
6-4-65 1340	1.61 27	7.2	6.2 6.2	0.24	0.12		< 25		9.0	99	DWR
	Clear; no foam.										
7-8-65 1305	1.56 19	7.3	6.2 2.3	0.18	0.08		< 25		8.2	93	DWR
	Clear; Lithium = 0.06 ppm										
8-5-65 1445	1.56 18	7.3	62 23	0.1	0.08		< 25		8.0	92	DWR
	Clear.										
9-22-65 1430	1.57 20	7.5	62 700	0.2	0.12		50		9.0	100	DWR
	Slightly turbid.										

TABLE D-2
ANALYSES OF SURFACE WATER

SANTA ANA DRAINAGE PROVINCE (Y)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactance value									Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C Evap 105°C Computed	Total hardness as $CaCO_3$
Stream name and station number																	
NEAR ARLINGTON						SANTA ANA RIVER				51							
6- 4-65	69	7.8	1066	113	27	76	5	0	327	127	103	20	0.8	0.14	--	710	393
				5.64	2.22	3.30	0.13		5.36	2.64	2.90	0.32					
				50	20	29	1		48	24	26	3				633	
7- 8-65	71	7.8	1083	116	26	77	5	0	330	127	105	23	0.7	0.15	--	717	397
				5.79	2.14	3.35	0.13		5.41	2.64	2.96	0.37					
				51	19	29	1		48	23	26	3				642	
8- 5-65	73	8.0	1053	115	27	78	5	0	327	129	102	24	0.9	0.16	--	705	398
				5.74	2.22	3.39	0.13		5.36	2.69	2.88	0.39					
				50	19	30	1		47	24	25	3				642	
9-22-65	70	7.9	1065	116	27	77	5	0	334	128	104	24	0.8	0.14	--	680	401
				5.79	2.22	3.35	0.13		5.47	2.66	2.93	0.39					
				50	19	29	1		48	23	26	3				646	

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

SANTA ANA DRAINAGE PROVINCE (Y)

Date Time Remarks	Gage ht.(ft) Flow (cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number				SANTA ANA RIVER 51E							
NEAR NORCO											
10-6-64 1215	None 15 est.	7.3	500 620	9.5	1.0		< 25		7.8	89	DWR
	Clear; little foam.										
11-5-64 1555	None 15 est	7.3	1,300 230	8.5	1.0	0.4	< 25		3.4	37	DWR
	Fish and foam.										
12-4-64 1120	None 28 est.	7.3	230 620	6.8	0.95		< 25		7.6	75	DWR
	Clear; little foam.										
1-20-65 1415	None 18 est.	7.3	230 620	10	1.2		< 25		8.6	90	DWR
	Clear.										
2-5-65 1350	None 20 est.	7.3	620 620	10	1.12		< 25		8.4	86	DWR
	Clear; little foam.										
3-4-65 1610	None 18 est.	7.3	62 620	8.5	1.2		< 25		8.8	95	DWR
	Clear; little foam.										
4-8-65 1130	None 50 est.	7.4	620 620	5.0	0.3		170		11.0	111	DWR
	Turbid; raining; foam.										
5-6-65 0945	None 30 est.	7.3	620 620	7.0	0.72		< 25		8.8	95	DWR
	Clear; some foam.										

SANTA ANA DRAINAGE PROVINCE (Y)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C Evap 105°C Computed	Total hardness as $CaCO_3$
Stream name and station number																	
NEAR NORCO						SANTA ANA RIVER					51E						
	72	7.4	1167	102	24	112	8	0	323	125	130	26	0.8	0.48	27	720	353
10- 6-64				5.09	1.97	4.87	0.20		5.29	2.60	3.67	0.42					
				42	16	40	2		44	22	31	4				714	
	67	7.4	1178	97	23	119	8	0	321	125	132	47	1.0	0.50	27	720	337
11- 5-64				4.84	1.89	5.17	0.20		5.26	2.60	3.72	0.76					
				40	16	43	2		43	21	30	6				737	
	59	7.3	1182	100	24	116	8	0	319	127	132	55	1.0	0.49	30	717	348
12- 4-64				4.99	1.97	5.04	0.20		5.23	2.64	3.72	0.89					
				41	16	41	2		42	21	30	7				750	
	64	7.4	1133	101	23	113	8	0	315	124	126	28	0.9	0.54	--	680	347
1-20-65				5.04	1.89	4.91	0.20		5.16	2.58	3.55	0.45					
				42	16	41	2		44	22	30	4				679	
	62	7.3	1115	105	20	105	8	0	312	122	119	32	0.9	0.50	--	710	344
2- 5-65				5.24	1.64	4.57	0.20		5.11	2.54	3.36	0.52					
				45	14	39	2		44	22	29	5				666	
	67	7.6	1116	108	23	105	7	0	325	125	122	26	0.9	0.46	--	710	364
3- 4-65				5.39	1.89	4.57	0.18		5.33	2.60	3.44	0.42					
				45	16	38	1		45	22	29	4				677	
	61	7.8	1089	106	23	91	6	0	314	123	114	8	0.9	0.34	--	678	359
4- 8-65				5.29	1.89	3.96	0.15		5.15	2.56	3.21	0.13					
				47	17	35	1		47	23	29	1				627	
	67	7.5	1203	103	26	115	7	0	322	136	135	24	1.2	0.56	--	760	364
5- 6-65				5.14	2.14	5.00	0.18		5.28	2.83	3.81	0.39					
				41	17	40	1		43	23	31	3				706	

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

SANTA ANA DRAINAGE PROVINCE (Y)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number				SANTA ANA RIVER 51E							
NEAR NORCO											
6-4-65 1405	None 34 est.	7.3	7,000 620	8.8	0.84		<25		9.4	92	DWR
	Clear; little foam; many small fish.										
7-8-65 1400	None 26 est.	7.8	230 2,300	2.8	0.26		<25		8.0	97	DWR
	Clear; little foam; lithium = 0.08 ppm.										
8-5-65 1510	None 26 est.	7.7	620 620	3.3	0.27		50		7.8	98	DWR
	Clear; lithium = 0.0 ppm.										
9-22-65 1510	None 30 est.	7.3	240 2,400	8	0.40		50		8.6	100	DWR
	Slightly turbid.										

SANTA ANA DRAINAGE PROVINCE (Y)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million / equivalents per million / percent reactance value									Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C / Evap 105°C / Computed	Total hardness as $CaCO_3$
Stream name and station number																	
NEAR NORCO — SANTA ANA RIVER — 51E																	
6- 4-65	74	7.3	1157	97 4.84 41	26 2.14 18	108 4.70 40	8 0.20 2	0	310 5.08 43	124 2.58 22	131 3.69 31	29 0.47 4	1.2	0.48	--	720 677	349
7- 8-65	79	7.8	1207	114 5.69 44	27 2.22 17	111 4.83 37	6 0.15 1	0	349 5.72 45	139 2.89 23	133 3.75 30	18 0.29 2	0.9	0.41	--	760 721	396
8- 5-65	81	7.7	1204	110 5.49 43	28 2.30 18	110 4.78 38	6 0.15 1	0	344 5.64 45	136 2.83 23	134 3.78 30	19 0.31 2	1.3	0.45	--	770 714	390
9-22-65	74	7.5	1159	103 5.14 42	26 2.14 18	108 4.70 39	8 0.20 2	0	329 5.39 44	130 2.71 22	129 3.64 30	27 0.44 4	1.0	0.80	--	730 695	364

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

SANTA ANA DRAINAGE PROVINCE (Y)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number NEAR CHINO				CHINO CREEK 86							
10-6-64 1320	-- Ponded	8.0	1,300 620				40		14.0	178	DWR
	Turbid; sewage odor; much marine life.										
11-5-64 1650	-- Dry no flow.										
12-4-64 1245	-- 1.5 est.	7.2	620 230	43	7.1	34	650		11.6	112	DWR
	Turbid; sewage odor; foam; garbage in stream.										
1-20-65 1530	-- 0.25 est.	8.2	620 620	19	1.8	29	200		13.6	134	DWR
	Color is very green; much foam.										
2- 5-65 1445	-- 0.1 est.	8.2	620 620	16	0.64	16	<25		16.4	158	DWR
	Very green color; foam.										
3- 4-65 1700	-- 0.01 est.	8.2	7,000 620				40		14.4	132	DWR
	Very green cast; dead goat in stream bed.										
4- 8-65 1215	-- 40 est.	7.5	620 2,300	1.2	0.12		400		8.8	73	DWR
	Turbid; some foam; rainy										
5- 6-65 1045	-- 1.5 est.	7.4	620 2,300	13	1.36	3	50		7.2	75	DWR
	Turbid; sewage odor; many insects; trash in stream bed.										

TABLE D-2

ANALYSES OF SURFACE WATER

SANTA ANA DRAINAGE PROVINCE (Y)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C Evap 105°C Computed	Total hardness as $CaCO_3$
Stream name and station number																	
NEAR CHINO						CHINO CREEK					86						
10- 6-64	83	7.3	1340	132 6.59 43	45 3.70 24	110 4.78 31	14 0.36 2	0	362 5.93 39	339 7.06 47	70 1.97 13	13 0.21 1	0.7	0.16	27	930 929	515
11- 5-64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
12- 4-64	57	7.4	989	30 1.50 19	24 1.97 24	95 4.13 51	19 0.49 6	0	381 6.24 62	50 1.04 10	89 2.51 25	19 0.31 3	0.4	0.51	39	550 553	174
1-20-65	59	7.4	1242	85 4.24 35	23 1.89 15	82 3.57 29	100 2.56 21	0	522 8.56 64	66 1.37 10	108 3.05 23	19 0.31 2	1.5	0.60	--	620 742	307
2- 5-65	57	7.4	962	66 3.29 37	19 1.56 18	38 1.65 19	93 2.38 27	0	411 6.74 69	54 1.12 11	61 1.72 18	15 0.24 2	0.8	0.32	--	570 549	243
3- 4-65	53	8.6	831	63 3.14 35	15 1.23 14	80 3.48 39	43 1.10 12	19 0.63 7	278 4.56 50	107 2.23 24	60 1.69 18	2 0.03	1.0	0.24	--	560 527	219
4- 8-65	45	7.2	156	19 0.95 61	3 0.25 16	4 0.17 11	7 0.18 12	0	63 1.03 68	10 0.21 14	6 0.17 11	7 0.11 7	0.3	0.07	--	95 87	60
5- 6-65	64	7.2	1193	66 3.29 28	16 1.32 11	140 6.09 53	35 0.89 8	0	307 5.03 44	61 1.27 11	172 4.85 42	22 0.35 3	1.7	0.40	--	720 665	231

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

SANTA ANA DRAINAGE PROVINCE (Y)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number						CHINO CREEK	86				
NEAR CHINO											
6- 4-65 1445	-- 0.33 est.	7.7	230 230	11.3	0.96	1.4	100		11.4	131	DWR
	Turbid; yellow color; sewage odor; foam; many insects.										
7- 8-65 1520	-- 0.5 est.	7.5	620 620	8.3	0.46	3	210		10.2	134	DWR
	Turbid; foam; sewage odor; lithium = 0.08 ppm										
8- 5-65 1615	Dry no flow.										
9-22-65 1610	-- 3 est.	7.7	7,000 7,000	17	2.56		40		11.2	125	DWR
	Green color; little foam.										

TABLE B-2

ANALYSES OF SURFACE WATER

SANTA ANA DRAINAGE PROVINCE (Y)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactance value									Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C Evap 105°C Computed	Total hardness as $CaCO_3$
Stream name and station number																	
NEAR CHINO						CHINO CREEK					86						
6- 4-65	73	7.3	1035	69 3.44 34	18 1.48 15	106 4.61 45	25 0.64 6	0	300 4.92 48	44 0.92 9	136 3.84 38	33 0.53 5	1.8	0.47	--	603 581	246
7- 8-65	86	7.5	1231	105 5.24 40	32 2.63 20	110 4.78 37	16 0.41 3	0	344 5.64 44	174 3.62 28	115 3.24 25	25 0.40 3	1.2	0.29	--	790 748	394
8- 5-65	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
9-22-65	70	7.3	708	45 2.25 31	15 1.23 17	78 3.39 47	13 0.33 5	0	322 5.28 69	38 0.79 10	45 1.27 17	17 0.27 4	2.0	0.44	--	450 412	174

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

SANTA ANA DRAINAGE PROVINCE (Y)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number				SANTA ANA RIVER				51A			
BELOW PRADO DAM											
10- 6-64 1255	1.95 22	7.3	620 230	1.5	0.30		< 25		8.4	97	DWR
	Clear; little foam.										
11- 5-64 1630	2.03 32	7.6	62 62	2.4			< 25		7.2	73	DWR
	Clear; some foam.										
12- 4-64 1200	2.12 28	7.4	7,000+ 7,000+	2.9			< 25		8.2	81	DWR
	Clear; foam.										
1-20-65 1505	2.26 60	7.4	2,300 620	5.3			< 25		8.4	89	DWR
	Clear; much foam.										
2- 5-65 1415	2.20 50	7.4	620 620	6.2			< 25		9.0	92	DWR
	Clear; foam.										
3- 4-65 1640	2.15 40	7.4	230 2,300	4.5			< 25		10.2	109	DWR
	Clear; foam.										
4- 8-65 1200	2.44 103	7.3	70,000 24,000	4.5			360		10.4	102	DWR
	Turbid; raining; foam.										

TABLE D-2

ANALYSES OF SURFACE WATER

SANTA ANA DRAINAGE PROVINCE (Y)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million / equivalents per million / percent reactance value									Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C / Evap 105°C / Computed	Total hardness as $CaCO_3$
Stream name and station number: SANTA ANA RIVER 51A																	
BELOW PRADO DAM																	
10- 6-64	73	7.8	1185	121 6.04 48	27 2.22 18	98 4.26 34	5 0.13 1	0	360 5.90 47	135 2.81 22	130 3.67 29	10 0.16 1	0.7	0.32	26	740 730	413
11- 5-64	62	7.8	1181	112 5.59 45	28 2.30 19	101 4.39 35	6 0.15 1	0	345 5.65 45	133 2.77 22	132 3.72 30	29 0.47 4	0.7	0.38	27	725 739	395
12- 4-64	59	7.7	1193	114 5.69 45	28 2.30 18	102 4.43 35	6 0.15 1	0	344 5.64 44	131 2.73 21	138 3.89 30	33 0.53 4	0.7	0.37	28	722 750	400
1-20-65	65	7.7	1170	111 5.54 45	26 2.14 17	105 4.57 37	6 0.15 1	0	339 5.56 45	132 2.75 22	136 3.84 31	19 0.31 2	0.6	0.42	--	710 703	384
2- 5-65	62	7.6	1178	118 5.89 47	23 1.89 15	103 4.48 36	6 0.15 1	0	342 5.61 45	130 2.71 22	131 3.69 30	26 0.42 3	0.7	0.42	--	750 706	389
3- 4-65	66	7.7	1200	112 5.59 45	27 2.22 18	105 4.57 36	6 0.15 1	0	339 5.56 45	132 2.75 22	137 3.86 31	18 0.29 2	0.8	0.42	--	740 705	391
4- 8-65	59	7.5	1130	103 5.14 44	27 2.22 19	96 4.17 36	8 0.20 2	0	303 4.97 43	134 2.79 24	125 3.53 31	16 0.26 2	0.8	0.29	--	697 659	368
5- 6-65	68	7.5	1186	109 5.44 44	28 2.30 19	102 4.43 36	6 0.15 1	0	334 5.47 45	132 2.75 23	130 3.67 30	17 0.27 2	1.0	0.42	--	740 690	387

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

SANTA ANA DRAINAGE PROVINCE (Y)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number				SANTA ANA RIVER 51A							
BELOW PRADO DAM											
5- 6-65 1015	2.18 45	7.3	2,300 2,300	4.6			40		8.4	92	DWR
	Slightly turbid; much foam.										
6- 4-65 1430	2.15 41	7.4	500 620	4.8			<25		9.2	96	DWR
	Clear; some silt; foam.										
7- 8-65 1500	2.05 30	7.4	620 620	2.0			40		9.4	116	DWR
	Silt; turbid; foam.										
8- 5-65 1545	1.99 26	7.4	70,000 24,000	2.5			35		9.0	113	DWR
	Clear; little foam.										
9-22-65 1545	2.01 28	7.5	1,300 2,400	6	0.60		150		10.0	116	DWR

TABLE D-2

ANALYSES OF SURFACE WATER

SANTA ANA DRAINAGE PROVINCE (Y)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C Evap 105°C Computed	Total hardness as $CaCO_3$
Stream name and station number																	
BELOW PRADO DAM						SANTA ANA RIVER					51A						
6- 4-65	64	7.5	1218	108	29	108	7	0	334	138	139	18	1.2	0.45	--	760	389
				5.39	2.38	4.70	0.18		5.47	2.87	3.92	0.29					
				43	19	37	1		44	23	31	2				713	
7- 8-65	80	7.8	1184	114	28	100	6	0	344	135	132	15	0.8	0.38	--	757	400
				5.69	2.30	4.35	0.15		5.64	2.81	3.72	0.24					
				46	18	35	1		45	23	30	2				700	
8- 5-65	81	7.5	1227	113	30	106	6	0	349	135	139	13	1.1	0.42	--	760	406
				5.64	2.47	4.61	0.15		5.72	2.81	3.92	0.21					
				44	19	36	1		45	22	31	2				715	
9-22-65	74	7.5	1181	109	27	105	7	0	342	130	137	17	0.9	0.48	--	730	383
				5.44	2.22	4.57	0.18		5.61	2.71	3.86	0.27					
				44	18	37	1		45	22	31	2				701	

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

SANTA ANA DRAINAGE PROVINCE (Y)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number				LAKE ELSINORE 89							
AT STATE PARK											
11-13-64 1330	-- Lake	8.0	0.6 0.6				190		8.4	82	DWR
	Clear; water level receding.										
1-15-65 1325	-- Lake	8.4	<0.45 <0.45				<25		9.0	79	DWR
	Clear; lake level low.										
3-12-65 1220	-- Lake	8.2	<0.45 <0.45				680		8.4	83	DWR
	Slightly turbid; lake receding.										
5-14-65 1430	1230.3 Lake	8.0	<0.45 <0.45				220		8.4	94	DWR
	Milky white color.										
7-16-65 1250	-- Lake	7.9	1.3 1.3				140		7.8	93	DWR
	Milky white color. Lake churned up by wind.										
9-10-65 1445	1228.0 Lake	7.9	6.2 130			0.9	195		10.6	133	DWR
	Slightly turbid; much boating and swimming.										

ANALYSES OF SURFACE WATER

SANTA ANA DRAINAGE PROVINCE (Y)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C / Evap 105°C / Computed	Total hardness as $CaCO_3$
Stream name and station number																	
AT STATE PARK						LAKE ELSINORE					89						
11-13-64	58	8.7	3779	75	43	696	23	29	287	669	650	2	1.1	1.46	8	2390	364
				3.74	3.54	30.26	0.59	0.97	4.70	13.93	18.33	0.03					
				10	9	79	2	3	12	37	48					2339	
1-15-65	50	8.3	4032	78	43	788	23	10	362	724	750	10	1.0	1.80	--	2570	372
				3.89	3.54	34.26	0.59	0.33	5.93	15.07	21.15	0.16					
				9	8	81	1	1	14	35	50					2607	
3-12-65	59	8.6	4585	77	48	880	25	14	393	775	825	1	1.4	1.85	--	2927	390
				3.84	3.95	38.26	0.64	0.47	6.44	16.14	23.27	0.02					
				8	8	82	1	1	14	35	50					2841	
5-14-65	70	8.2	4098	65	44	768	23	0	361	699	714	5	1.0	1.75	--	2600	343
				3.24	3.62	33.39	0.59		5.92	14.55	20.13	0.08					
				8	9	82	1		15	36	49					2498	
7-16-65	77	8.5	5015	69	49	990	28	16	408	866	933	3	1.4	2.10	--	3256	374
				3.44	4.03	43.05	0.72	0.53	6.69	18.03	26.31	0.05					
				7	8	84	1	1	13	35	51					3158	
9-10-65	82	8.5	6203	52	60	1272	37	19	459	1043	1195	14	1.4	2.05	--	4033	376
				2.59	4.93	55.31	0.95	0.63	7.52	21.72	33.70	0.23					
				4	8	87	1	1	12	34	53					3921	

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

SAN DIEGO DRAINAGE PROVINCE (Z)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Synders[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number											
NEAR FALLBROOK			SANTA MARGARITA RIVER				51C				
11-13-64 1235	2.22 6 est	7.2	62 240				<25		8.8	85	DWR
	Clear.										
1-15-65 1100	2.29 3.6	7.5	4.5 4.5				<25		9.8	85	DWR
	Clear										
3-12-65 1021	2.30 3.0	7.6	0.6 1.3				<25		10.6	101	DWR
	Clear.										
5-14-65 1300	2.29 3.3	7.4	13 2.3				<25		9.8	100	DWR
	Clear.										
7-15-65	2.21 3 est	7.3	240 130				<25		8.8	98	DWR
	Clear; swimmers in river.										
9-10-65 1350	2.22 4 est	7.3	23 23				<25		9.6	100	DWR
	Clear.										

TABLE D-2
ANALYSES OF SURFACE WATER

SAN DIEGO DRAINAGE PROVINCE (Z)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C / Evap 105°C Computed	Total hardness as $CaCO_3$
Stream name and station number																	
NEAR FALLBROOK						SANTA MARGARITA RIVER					51C						
	57	7.9	1318	101	31	137	6	0	362	150	166	0	0.7	0.24	34	822	380
11-13-64				5.04	2.55	5.96	0.15		5.93	3.12	4.68						
				37	19	44	1		43	23	34					804	
	49	8.1	1292	99	31	135	3	0	339	153	168	0	0.5	0.18	--	770	375
1-15-65				4.94	2.55	5.87	0.08		5.56	3.19	4.74						
				37	19	44	1		41	24	35					756	
	56	8.1	1210	96	29	120	3	0	333	135	149	1	0.5	0.16	--	728	359
3-12-65				4.79	2.38	5.22	0.08		5.46	2.81	4.20	0.02					
				38	19	42	1		44	22	34					697	
	62	7.9	1320	101	34	132	3	0	359	144	163	1	1.0	0.20	--	813	392
5-14-65				5.04	2.80	5.74	0.08		5.88	3.00	4.60	0.02					
				37	20	42	1		44	22	34					756	
	70	7.9	1344	106	36	139	4	0	379	146	173	0	0.7	0.22	--	841	413
7-15-65				5.29	2.96	6.04	0.10		6.21	3.04	4.88						
				37	21	42	1		44	22	35					791	
	64	8.1	1218	93	29	131	4	0	376	113	149	0	0.7	0.11	--	730	351
9-10-65				4.64	2.38	5.70	0.10		6.16	2.35	4.20						
				36	19	44	1		48	18	33					705	

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

SAN DIEGO DRAINAGE PROVINCE (Z)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number				ESCONDIDO CREEK 63							
NEAR HARMONY GROVE											
11-13-64 1035	-- 6 est.	7.4	210 230	34	3.1	17	<25		7.4	77	DWR
	Clear; some foam.										
1-15-65 0950	-- 6 est.	7.2	230 2,400	46	4.3	28	<25		7.0	67	DWR
	Slightly turbid; some foam.										
3-12-65 0850	-- 12 est.	7.2	12 13	35	4.2	15	240		9.2	91	DWR
	Slightly turbid; high flow just after rain.										
5-14-65 1200	-- 4 est.	7.0	62 23	33	2.9	28	50		8.4	90	DWR
	Slightly turbid; much foam; sewage odor.										
7-16-65 1015	-- 3.5 est.	7.2	62 240	38	2.3	15	<25		7.6	88	DWR
	Clear; foam.										
9-10-65 1145	-- 5 est.	7.1	700 700+	36	1.4	17	210		9.0	100	DWR
	Slightly turbid; floating vegetation.										

TABLE D-2
ANALYSES OF SURFACE WATER

SAN DIEGO DRAINAGE PROVINCE (Z)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactance value									Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C Evap 105°C Computed	Total hardness as $CaCO_3$
Stream name and station number																	
NEAR HARMONY GROVE						ESCONDIDO CREEK					63						
	64	7.1	1838	71	43	220	17	0	225	272	293	41	0.8	0.70	20	1104	354
11-13-64				3.54	3.54	9.57	0.43		3.69	5.66	8.26	0.66					
				21	21	56	3		20	31	45	4				1089	
	57	7.4	2278	103	38	300	17	0	313	312	394	26	1.0	0.80	--	1310	414
1-15-65				5.14	3.13	13.04	0.43		5.13	6.50	11.11	0.42					
				24	14	60	2		22	28	48	2				1346	
	59	7.3	2301	91	49	272	17	0	239	304	388	40	1.3	0.76	--	1335	429
3-12-65				4.54	4.03	11.83	0.43		3.92	6.33	10.94	0.65					
				22	19	57	2		18	29	50	3				1281	
	66	7.2	2504	93	54	320	18	0	326	323	432	28	1.2	0.84	--	1459	454
5-14-65				4.64	4.44	13.91	0.46		5.34	6.72	12.18	0.45					
				20	19	59	2		22	27	49	2				1430	
	74	7.1	2231	96	48	282	16	0	254	326	376	41	1.4	0.78	--	1347	437
7-16-65				4.79	3.95	12.26	0.41		4.16	6.79	10.60	0.66					
				22	18	57	2		19	31	48	3				1312	
	69	7.1	2285	83	52	300	18	0	277	329	372	52	1.5	0.44	--	1330	421
9-10-65				4.14	4.28	13.04	0.46		4.54	6.85	10.49	0.84					
				19	20	59	2		20	30	46	4				1344	

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

SAN DIEGO DRAINAGE PROVINCE (Z)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Synocts[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number				SAN DIEGO RIVER				65			
AT OLD MISSION DAM											
11-12-64 1425	-- 0.1 est	7.8	130 620	0.12	1.3		140		8.6	87	DWR
	Slightly turbid: much green algae; little foam.										
1-14-65 1050	-- 7 est	7.2	23 620	8.5	1.8		< 25		7.4	68	DWR
	Clear; much foam.										
3-11-65 1105	-- 8 est	7.3	62 62	6.7	1.8		150		8.0	79	DWR
	Clear; much foam; floating green algae.										
5-13-65 1100	-- 2 est	7.4	230 23	3.8	1.2		110		8.0	83	DWR
	Slightly turbid; sewage odor; much foam.										
7-15-65 1015	-- 0.75 est	7.2	2400 --	2.7	1.2		50		8.0	87	DWR
	Light green tinge; little foam; much green surface algae.										
9- 9-65 1430	-- 0.1 est	7.0	23 23	2.3	1.1		100		92	110	DWR
	Greenish hue; much green algae.										

TABLE D-2
ANALYSES OF SURFACE WATER

SAN DIEGO DRAINAGE PROVINCE (Z)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million / equivalents per million / percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C	TDS Evap 105°C	TDS Computed	Total hardness as $CaCO_3$
Stream name and station number																			
AT OLD MISSION DAM						SAN DIEGO RIVER					65								
11-12-64	61	7.1	3648	169	98	490	12	0	495	421	760	20	0.8	0.92	38	2340			825
				8.43	8.06	21.31	0.31		8.11	8.77	21.43	0.32							
				22	21	56	1		21	23	55	1						2253	
1-14-65	53	7.2	2387	111	63	323	12	0	305	354	420	37	0.5	0.72	--	1490			536
				5.54	5.18	14.04	0.31		5.00	7.37	11.84	0.60							
				22	21	56	1		20	30	48	2						1471	
3-11-65	59	7.6	2474	115	66	314	13	0	347	351	430	13	0.7	0.70	--	1577			559
				5.74	5.43	13.65	0.33		5.69	7.31	12.13	0.21							
				23	22	54	1		22	29	48	1						1474	
5-13-65	64	7.2	2258	102	59	294	11	0	312	332	375	23	0.6	0.74	--	1467			497
				5.09	4.85	12.78	0.28		5.11	6.91	10.58	0.37							
				22	21	56	1		22	30	46	2						1351	
7-15-65	68	7.7	2660	113	71	380	13	0	439	329	498	17	1.0	0.80	--	1670			574
				5.64	5.84	16.52	0.33		7.20	6.85	14.04	0.27							
				20	21	58	1		25	24	50	1						1639	
9- 9-65	77	7.2	3029	128	77	416	10	0	522	279	589	4	0.8	0.92	--	1850			637
				6.39	6.33	18.09	0.26		8.56	5.81	16.61	0.06							
				21	20	58	1		28	19	54							1761	

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

SAN DIEGO DRAINAGE PROVINCE (Z)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number					SAN DIEGO RIVER			65C			
NEAR MISSION GORGE ROAD											
11-12-64 1340	Dry no flow.										
1-14-65 1125	1.48 2.5 est	7.4	2.3 6.0	2.0	1.6		< 25		7.8	71	DWR
	Clear; much foam.										
3-11-65 1145	1.38 6 est	7.4	13 62	2.3	1.5		45		7.6	74	DWR
	Clear; little foam.										
5-13-65 1020	1.36 4 est	7.2	62 6.2	2.8	1.2		35		8.2	85	DWR
	Yellowish color; some foam; small fish; floating green algae.										
7-15-65 0950	0.99 0.02 est	7.2	23 240	2.2	1.1		< 25		8.6	94	DWR
	Clear; very low flow.										
9- 9-65 1515	Dry no flow.										

ANALYSES OF SURFACE WATER

SAN DIEGO DRAINAGE PROVINCE (Z)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C / Evap 105°C / Computed	Total hardness as $CaCO_3$
Stream name and station number																	
NEAR MISSION GORGE ROAD						SAN DIEGO RIVER					65C						
11-12-64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
1-14-65	53	7.5	2433	121 6.04 24	63 5.18 21	315 13.70 54	12 0.31 1	0	271 4.44 18	403 8.39 33	425 11.99 47	31 0.50 2	0.5	0.72	--	1540 1504	561
3-11-65	58	7.9	2536	120 5.99 23	68 5.59 22	324 14.09 54	10 0.26 1	0	341 5.59 21	363 7.56 29	455 12.83 49	4 0.06	0.7	0.70	--	1610 1513	579
5-13-65	64	7.6	2247	104 5.19 22	61 5.02 21	300 13.04 55	10 0.26 1	0	325 5.33 23	337 7.02 30	385 10.86 46	12 0.19 1	0.9	0.58	--	1410 1370	511
7-15-65	68	7.3	2913	153 7.63 25	93 7.65 25	348 15.13 49	8 0.20 1	0	417 6.83 22	414 8.62 28	533 15.03 49	19 0.31 1	0.5	0.74	--	1937 1774	765
9- 9-65	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

SAN DIEGO DRAINAGE PROVINCE (Z)

Date Time Remarks	Gage ht.(ft) Flow (cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Syndets[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number				SPRING VALLEY CREEK				65B			
NEAR LA PRESSA											
11-12-64 1530	-- 1 est	7.4	700+ 700	1.1	0.8		70		6.4	65	DWR
	Light brown color; small fish; little foam.										
1-14-65 0930	-- 0.25 est	7.8	230 62	0.38	0.46		<25		9.0	83	DWR
	Clear;foam.										
3-11-65 1330	-- 2 est	7.4	2400 62	1.1	1.3		600		11.2	104	DWR
	Clear; little foam; just after rain.										
5-13-65 1130	-- 0.1 est.	7.5	7000 120	0.10	0.44		<25		8.8	97	DWR
	Yellowish color; small fish; little foam.										
7-15-65 1100	-- 0.25 est	7.6	62 50				<25		12.4	142	DWR
	Clear; much trash in stream.										
9-8- 65 1600	-- 0.1 est	7.3	23 23				<25		6.8	82	DWR
	Clear; yellowish tinge; small fish.										

TABLE 3-2
ANALYSES OF SURFACE WATER

SAN DIEGO DRAINAGE PROVINCE (Z)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactance value									Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C Evap 105°C Computed	Total hardness as $CaCO_3$
Stream name and station number																	
NEAR LA PRESSA				SPRING VALLEY CREEK 65B													
	61	7.2	3124	157	76	372	9	0	181	267	781	27	0.6	0.70	18	2101	705
11-12-64				7.83	6.25	16.17	0.23		2.97	5.56	22.02	0.44					
				26	21	53	1		10	18	71	1				1797	
	54	7.8	9091	444	223	1320	4	0	396	701	2700	15	0.7	1.10	--	6240	2027
1-14-65				22.16	18.34	57.39	0.10		6.49	14.59	76.14	0.24					
				23	19	59			7	15	78					5604	
	54	7.0	1297	58	28	148	4	0	76	105	290	6	0.4	0.18	--	810	260
3-11-65				2.89	2.30	6.44	0.10		1.25	2.19	8.18	0.10					
				25	20	55	1		11	19	70	1				677	
	69	7.7	9615	422	245	1440	4	0	312	761	2925	17	1.0	0.96	--	6520	2062
5-13-65				21.06	20.15	62.61	0.10		5.11	15.84	82.49	0.27					
				20	19	60			5	15	80					5969	
	73	7.8	11521	498	287	1648	5	0	304	814	3500	15	0.8	1.10	--	8100	2424
7-15-65				24.85	23.60	71.66	0.13		4.98	16.95	98.70	0.24					
				21	20	60			4	14	82					6918	
	78	7.6	12034	519	306	1760	6	0	298	835	3730	1	0.6	1.25	--	8340	2556
9- 8-65				25.90	25.17	76.52	0.15		4.88	17.38	105.19	0.02					
				20	20	60			4	14	83					7305	

TABLE D-2

ANALYSES OF SURFACE WATER

FIELD OBSERVATIONS, BACTERIOLOGICAL DETERMINATIONS, AND ADDITIONAL CHEMICAL ANALYSES

SAN DIEGO DRAINAGE PROVINCE (Z)

Date Time Remarks	Gage ht.(ft) Flow(cfs)	Field pH	Coliform[a] MPN/ml	Constituents, in parts per million					Dissolved oxygen		Analyzed by[c]
				PO_4	Synders[b]	NH_4	Turbidity	Phenol	Parts per million	Percent saturation	
Stream name and station number				TIA JUANA RIVER 66							
AT INTERNATIONAL BOUNDARY											
11-12-64 1620	Dry no flow.										
1-14-65 1345	Dry no flow.										
3-11-65 1450	-- 0.05 est	8.0	2,300 2,300				18,000		11.0	103	DWR
	Very turbid; much mud in water; raining										
5-13-65 1410	Dry no flow.										
7-15-65 1205	Dry no flow.										
9-9- 65 1030	Dry no flow.										

ANALYSES OF SURFACE WATER

SAN DIEGO DRAINAGE PROVINCE (Z)

DATE SAMPLED	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactance value: Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO_3	Bicarbonate HCO_3	Sulfate SO_4	Chloride Cl	Nitrate NO_3	Mineral constituents in parts per million: Fluoride F	Boron B	Silica SiO_2	TDS Evap 180°C Evap 105°C Computed	Total hardness as $CaCO_3$
Stream name and station number																	
AT INTERNATIONAL BOUNDARY				TIA JUANA RIVER 66													
11-12-64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
1-14-65	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
3-11-65	55	7.7	176	16 0.80 51	3 0.25 16	10 0.43 27	4 0.10 6	0	52 0.85 52	21 0.44 27	12 0.34 21	1 0.02 1	0.2	0.08	--	100 93	53
5-13-65	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
7-15-65	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
9- 9-65	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		

TABLE D-2

ANALYSES OF SURFACE WATER

The stations below were dry on the dates and times shown

Los Angeles Drainage Province (U)		San Diego Drainage Province (Z)			
Mission Creek at Whittier Narrows, Station 49a		San Luis Rey River near Pala, Station 62		San Dieguito River below San Pasqual Valley, Station 64	
Date	Time	Date	Time	Date	Time
10-7-64	1020	11-13-64	1205	11-13-64	0955
11-6-64	1315	1-15-65	1025	1-15-65	0915
12-2-64	0945	3-12-65	0735	3-12-65	0805
1-8-65	0915	5-14-65	1230	5-14-65	1140
2-1-65	1440	7-16-65	0905	7-16-65	0750
3-5-65	1020	9-10-65	1250	9-10-65	1115
4-9-65	0845				
5-7-65	0750				
6-4-65	2305				
7-9-65	1445				
8-6-65	1735				
9-3-65	1315				

TABLE D-3

ANALYSES OF TRACE ELEMENTS IN SURFACE WATER

WATER YEAR 1964-65

Station	Sta No.	Date	Constituents in parts per billion															
			Aluminum (Al)	Beryllium (Be)	Bismuth (Bi)	Cadmium (Cd)	Cobalt (Co)	Chromium (Cr)	Copper (Cu)	Iron (Fe)	Gallium (Ga)	Germanium (Ge)	Manganese (Mn)	Molybdenum (Mo)	Nickel (Ni)	Lead (Pb)	Titanium (Ti)	Vanadium (V)	Zinc (Zn)
CENTRAL COASTAL DRAINAGE PROVINCE (T)																		
Santa Ynez River near Solvang	45a	5- 3	5.7	0.57**	0.29*	1.4**	1.4**	1.4**	5.7	86	5.7*	0.29**	1.4**	10	2.9	1.4**	0.57**	3.4	5.7*
LOS ANGELES DRAINAGE PROVINCE (U)																		
Santa Clara River at L. A. -Ventura County Line	46	5-4	643	0.57**	0.29**	1.4**	16	1.4**	1.4**	500***	5.7**	0.29**	17	6.3	100***	1.4**	0.57**	0.29*	5.7**
		9-2	12	0.57**	0.29**	1.4**	1.4**	1.4**	1.4**	2.5	5.7**	0.29**	1.4**	2.7	2.2	2.5	0.57**	0.29**	23
Santa Clara River near Santa Paula	46a	5-4	37	0.57**	0.29**	1.4**	1.4**	1.4**	1.4**	271	5.7**	0.29**	1.4**	7.7	13	1.4**	0.57**	1.7	5.7**
		9-2	17	0.57**	0.29**	1.4**	1.4**	1.4**	1.4**	4.9	5.7**	0.29**	1.4**	0.29**	1.3	1.4**	0.57**	0.29**	5.7**
Los Angeles River at Figueroa Street	47	5-7	27	0.57**	0.29**	1.4**	1.4**	1.4**	7.1	46	5.7**	0.29**	1.4**	14	2.2	1.4**	0.57**	7.4	5.7**
		9-3	1.4**	0.57**	0.29**	1.4**	1.4**	1.4**	1.4**	27	5.7**	0.29**	1.4**	0.29**	0.29**	1.4**	0.57**	0.29**	5.7**
Los Angeles River at Pacific Coast Highway	48	5-7	9.7	0.57**	0.29**	29	1.4**	36	8.9	91	5.7**	0.71	80	17	4.9	1.4**	0.57**	9.1	5.7**
Rio Hondo at Whittier Narrows	49	5-7	7-1	0.57**	0.29**	1.4**	1.4**	1.4**	8.6	15	5.7**	0.29**	1.4**	18	1.1	1.4**	0.57**	5.7	5.7**
		9-3	1.4**	0.57**	0.29**	1.4**	1.4**	1.4**	1.4**	14	5.7**	0.29**	1.4**	0.29**	2.7	1.4**	0.57**	7.7	5.7**
Rio Hondo above Spreading Grounds	49b	5-7	9.1	0.57**	0.29**	1.4**	1.4**	1.4**	11	123	5.7**	0.29**	1.4**	18	2.1	1.4**	0.57**	7.4	5.7**
		9-3	31	0.57**	0.29**	1.4**	1.4**	1.4**	69	94	5.7**	0.29**	1.4**	25	8.6	19	0.57**	35	131
San Gabriel River at Whittier Narrows	50	5-7	6.6	0.57**	0.29**	1.4**	1.4**	1.4**	5.4	11	5.7**	0.29**	1.4**	14	1.1	1.4**	0.57**	5.1	5.7**
		9-2	30	0.57**	0.29**	1.4**	1.4**	1.4**	1.4**	35	5.7**	0.29**	1.4**	0.29**	1.3	2.9	0.57**	0.29**	5.7**
Ventura River near Ventura	61	5-4	19	0.57**	0.29**	1.4**	1.4**	4.6	1.4**	83	5.7**	0.29**	1.4**	2.9	4.3	1.4**	0.57**	0.86	5.7**
		9-2	1.7	0.67**	0.33**	1.7**	1.7**	1.7**	1.7**	9.0	6.7**	0.33**	1.7**	0.33**	1.5	1.7**	0.67**	0.33**	6.7**
COLORADO RIVER BASIN DRAINAGE PROVINCE (X)																		
Colorado River at Yuma, Arizona	56	5-11	7.1	0.57**	0.29**	1.4**	1.4**	1.4**	1.4**	17	5.7**	0.29**	1.4**	15	0.80	1.4**	0.57**	4.9	5.7**
		9- 8	1.4**		0.29**	1.4**	1.4**	1.4**	1.4**	39	5.7**	0.29**	1.4**	11	0.29**	1.4**	0.57**	3.7	5.7**
SANTA ANA DRAINAGE PROVINCE (Y)																		
Warm Creek near Colton	50b	5- 6	12	0.57**	0.29**	1.4**	1.4**	13	19	97	5.7**	0.29**	17	3.7	5.4	1.6	0.57**	2.9	5.7**
		9-22	1.4**	0.57**	0.29**	1.4**	1.4**	1.4**	1.4**	117	5.7**	0.29**	1.4**	8.6	46	1.4**	0.57**	3.7	5.7**
Santa Ana River near Arlington	51	5- 6	7.4	0.57**	0.29**	1.4**	1.4**	1.4**	4.6	51	5.7**	0.29**	1.4**	4.0	1.0	1.4**	0.57**	4.0	5.7**
Santa Ana River below Prado Dam	51a	5- 6	6.6	0.57**	0.29**	1.4**	1.4**	1.4**	5.1	71	5.7**	0.29**	1.4**	5.7	1.6	1.4**	0.57**	7.7	5.7**
		9-22	20	0.57**	0.29**	1.4**	1.4**	1.4**	1.4**	7.1	5.7**	0.29**	1.4**	0.29**	1.9	1.4**	0.57**	9.7	5.7**
Santa Ana River near Norco	51e	5- 6	5.1	0.57**	0.29**	1.4**	1.4**	2.5	5.4	7.1	5.7**	0.29**	1.4**	6.6	1.3	1.4**	0.57**	4.3	5.7**
		9-22	1.4**	0.57**	0.29**	1.4**	1.4**	1.4**	1.4**	42	5.7**	0.29**	1.4**	0.29**	2.3	1.4**	0.57**	8.0	5.7**

TABLE D-3

ANALYSES OF TRACE ELEMENTS IN SURFACE WATER

WATER YEAR 1964-65
(continued)

Station	Sta No	Date	Constituents in parts per billion																
			Aluminum (Al)	Beryllium (Be)	Bismuth (Bi)	Cadmium (Cd)	Cobalt (Co)	Chromium (Cr)	Copper (Cu)	Iron (Fe)	Gallium (Ga)	Germanium (Ge)	Manganese (Mn)	Molybdenum (Mo)	Nickel (Ni)	Lead (Pb)	Titanium (Ti)	Vanadium (V)	Zinc (Zn)
SAN DIEGO DRAINAGE PROVINCE (Z)																			
Escondido Creek near Harmony Grove	63	5-14	15	0.57**	0.29**	1.4**	1.4**	1.4**	1.4**	100	5.7**	0.29**	150	10	40	1.4**	0.57**	5.0	5.7**
		9-10	1.4**	0.57**	0.29**	1.4**	1.4**	1.4**	1.4**	15	5.7**	0.29**	1.4**	0.29**	29	1.4**	0.57**	0.29**	5.7**
San Diego River near Mission Gorge Road	65c	5-13	7.7	0.57**	0.29**	1.4**	1.4**	1.4**	1.4**	23	5.7**	0.29**	1.4**	9.1	3.7	1.4**	0.57**	4.6	5.7**

*Results are equal to the order of magnitude but slightly less than the amount indicated.
**Results are less than the amount indicated.
***Results are more than the amount indicated.

TABLE D-4
RADIOASSAYS OF SURFACE WATER

RADIOASSAYS OF SURFACE WATER

CENTRAL COASTAL DRAINAGE PROVINCE (T)

Station	Sta. No.	Date	Picocuries per Liter[a]			
			Dissolved Alpha	Solid Alpha	Dissolved Beta	Solid Beta
Water Year 1964 - 1965		1965				
Cuyama River near Garey	44a	5 - 3	0.00	0.67 ± 0.97	2.55 ± 14.11	- 2.97 ± 8.49
		9 - 1	Dry			
Santa Ynez River at Cachuma Reservoir	44b	5 - 3	6.41 ± 4.90	0.47 ± 0.89	7.26 ± 12.09	- 5.20 ± 7.71
		9 - 1	0.49 ± 2.20	0.19 ± 0.76	2.36 ± 11.84	0.00 ± 0.00
Santa Ynez River near Solvang	45a	5 - 3	- 0.96 ± 2.06	0.67 ± 0.97	- 6.40 ± 13.00	- 5.28 ± 7.81
		9 - 1	Dry			

a. Deviations reported at the 95 percent confidence level.

TABLE D-4

RADIOASSAYS OF SURFACE WATER

LOS ANGELES DRAINAGE PROVINCE (U)

Station	Sta. No.	Date	Picocuries per Liter[a]			
			Dissolved Alpha	Solid Alpha	Dissolved Beta	Solid Beta
Water Year 1964 - 1965		1965				
Matilija Creek above Matilija Dam	45b	5 - 4	0.00	- 0.04 ± 1.73	9.26 ± 11.29	- 4.73 ± 7.83
		9 - 2	3.64 ± 16.03	0.22 ± 0.66	0.00 ± 0.00	7.31 ± 8.72
Santa Clara River at Los Angeles-Ventura County Line	46	5 - 4	9.17 ± 16.82	0.12 ± 0.70	7.78 ± 70.06	- 4.22 ± 8.29
		9 - 2	0.38 ± 1.69	0.22 ± 2.10	0.00 ± 0.00	0.00 ± 0.00
Santa Clara River near Santa Paula	46a	5 - 4	11.50 ± 12.16	1.65 ± 1.30	6.82 ± 14.99	- 1.29 ± 7.98
		9 - 2	14.70 ± 12.00	1.28 ± 1.19	6.83 ± 31.95	6.62 ± 8.43
Piru Creek near Piru	46c	5 - 4	4.32 ± 5.58	0.67 ± 0.97	- 1.47 ± 15.01	5.42 ± 13.52
Sespe Creek near Fillmore	46d	5 - 4	1.57 ± 2.72	- 0.12 ± 1.73	5.42 ± 13.52	1.20 ± 7.90
		9 - 2	0.00 ± 0.00	0.00 ± 0.00	14.84 ± 15.88	0.00 ± 0.00
Santa Paula Creek near Santa Paula	46e	5 - 4	- 0.88 ± 1.71	0.59 ± 0.88	- 5.35 ± 11.52	1.37 ± 9.44
		9 - 2	2.84 ± 3.66	1.26 ± 1.11	14.28 ± 13.60	20.35 ± 9.88
Los Angeles River at Figueroa Street	47	5 - 7	7.81 ± 8.24	0.71 ± 1.05	41.32 ± 51.88	- 5.52 ± 9.42
		9 - 3	1.01 ± 4.51	0.00 ± 0.00	0.00 ± 0.00	4.31 ± 8.10
Los Angeles River at Pacific Coast Highway	48	5 - 7	- 6.15 ± 8.93	2.76 ± 1.61	44.56 ± 59.28	4.97 ± 8.15
		9 - 3	0.00 ± 0.00	2.98 ± 1.81	2.58 ± 6.10	10.67 ± 10.13
Rio Hondo at Whittier Narrows	49	5 - 7	2.50 ± 3.86	0.59 ± 0.98	6.81 ± 12.06	- 1.74 ± 7.81
		9 - 3	0.00 ± 0.00	0.08 ± 0.69	12.79 ± 13.52	10.46 ± 9.70
Mission Creek at Whittier Narrows	49a	5 - 7	Dry			
		9 - 3	Dry			

a Deviations reported at the 95 percent confidence level.

RADIOASSAYS OF SURFACE WATER

LOS ANGELES DRAINAGE PROVINCE (U)
(continued)

Station	Sta. No.	Date	Picocuries per Liter[a] Dissolved Alpha	Solid Alpha	Dissolved Beta	Solid Beta
Water Year 1964 - 1965		1965				
Rio Hondo above Spreading Grounds	49b	5 - 7	1.54 ± 3.92	0.43 ± 0.80	- 1.44 ± 14.69	1.31 ± 9.23
		9 - 3	0.15 ± 2.16	0.93 ± 0.91	27.31 ± 15.20	3.31 ± 8.65
San Gabriel River at Whittier Narrows	50	5 - 7	3.78 ± 3.42	0.90 ± 2.03	-13.33 ± 11.51	- 9.68 ± 7.75
		9 - 3	Dry			
San Gabriel River at Azusa Powerhouse	50d	5 - 6	0.22 ± 1.31	0.00	4.05 ± 12.47	- 1.85 ± 9.36
		9 - 3	0.54 ± 2.57	0.00 ± 0.00	2.55 ± 12.56	4.22 ± 8.19
Ventura River near Ventura	61	5 - 4	0.47 ± 0.41	-0.12 ± 1.73	- 3.01 ± 12.47	7.88 ± 8.10
		9 - 2	2.30 ± 3.57	0.30 ± 0.76	4.84 ± 13.37	5.42 ± 9.46
Colorado River Aqueduct at La Verne	69	See Page 176 for Radiological Assay				
Los Angeles Aqueduct near San Fernando, Upper Van Norman Inlet	70	See Page 177 for Radiological Assay				

a. Deviations reported at the 95 percent confidence level.

TABLE D-4

RADIOASSAYS OF SURFACE WATER

LOS ANGELES DRAINAGE PROVINCE (U)

(continued)

Source and Sampling Point	Date Sampled [b]	Date of Analysis	Picocuries per liter[a]	
			Gross Alpha	Gross Beta
Colorado River Aqueduct at La Verne, Station 69	October 1964	11- 9-64	4.2 ± 0.7	14.2 ± 2.6
	November 1964	12- 9-64	4.9 ± 0.7	14.2 ± 2.6
	December 1964	1-15-65	5.9 ± 0.7	12.7 ± 2.6
	January 1965	2- 6-65	3.1 ± 0.7	10.9 ± 2.6
	February 1965	3-12-65	5.1 ± 0.7	19.5 ± 2.6
	March 1965	4- 7-65	4.6 ± 0.7	22.5 ± 2.6
	April 1965	5- 8-65	5.4 ± 0.7	6.5 ± 2.6
	May 1965	6- 8-65	4.6 ± 0.7	19.4 ± 2.6
	June 1965	7-12-65	4.1 ± 0.7	19.9 ± 2.6
	July 1965	8- 6-65	4.4 ± 0.7	11.6 ± 2.6
	August 1965	9-24-65	4.2 ± 0.7	12.6 ± 2.6
	September 1965	10-12-65	3.7 ± 0.7	19.1 ± 2.6

a. Deviations reported at the 90 percent confidence level.

b. Monthly composite sample analyzed by The Metropolitan Water District of Southern California.

RADIOASSAYS OF SURFACE WATER

LOS ANGELES DRAINAGE PROVINCE (U)

(continued)

Source and Sampling Point	Date Sampled[a]	Gross Beta Activity[b]	Date Sampled	Gross Beta Activity[b]	Date Sampled	Gross Beta Activity[b]
Upper Van Norman Inlet	10- 7-64	16.1 ± 2.7	1-26-65	31.9 ± 3.6	5-26-65	10.7 ± 1.5
Los Angeles Aqueduct near San Fernando, Station 70	10-14-64	13.7 ± 2.5	1-26-65	9.9 ± 1.5	6- 2-65	11.3 ± 1.5
	10-19-64	13.1 ± 2.5	2- 3-65	9.9 ± 1.5	6- 9-65	12.2 ± 1.6
	10-28-64	16.1 ± 2.3	2-10-65	11.9 ± 1.6	6-15-65	11.6 ± 1.5
	11- 4-64	12.1 ± 1.9	2-17-65	11.4 ± 1.6	6-22-65	1.6 ± 0.6
	11-10-64	16.7 ± 2.3	2-24-65	9.4 ± 1.4	7- 1-65	10.5 ± 1.5
	11-17-64	13.0 ± 2.0	3- 2-65	10.1 ± 1.5	7- 7-65	8.3 ± 1.3
	11-25-64	14.5 ± 2.1	3- 9-65	16.1 ± 2.4	7-14-65	8.5 ± 1.3
	12- 2-64	12.9 ± 1.8	3-19-65	17.6 ± 2.5	7-21-65	7.6 ± 1.2
	12- 9-64	13.5 ± 1.8	3-24-65	20.9 ± 2.8	7-28-65	8.5 ± 1.2
	12-16-64	11.5 ± 1.6	3-31-65	13.4 ± 2.1	8- 4-65	8.7 ± 1.3
	12-23-64	12.9 ± 1.8	4- 7-65	19.5 ± 2.7	8-11-65	9.3 ± 1.4
	12-30-64	10.2 ± 1.5	4-14-65	19.5 ± 3.0	8-18-65	8.1 ± 1.4
	1- 6-65	11.3 ± 1.6	4-21-65	16.0 ± 2.4	8-25-65	7.7 ± 1.4
	1-13-65	11.1 ± 1.7	4-28-65	11.7 ± 1.9	8-31-65	8.6 ± 1.5
	1-20-65	10.2 ± 1.5	5- 3-65	11.3 ± 1.8	9- 8-65	7.3 ± 1.5

a. Picocuries per liter. Deviations reported at the 95 percent confidence level.
b. Sampled and analyzed by the City of Los Angeles Department of Water and Power.

TABLE D-4

RADIOASSAYS OF SURFACE WATER

LOS ANGELES DRAINAGE PROVINCE (U)
(continued)

Source and Sampling Point	Date Sampled [a]	Gross Beta Activity [b]	Date Sampled	Gross Beta Activity [b]	Date Sampled	Gross Beta Activity [b]
Upper Van Norman Inlet	9-15-65	7.9 ± 1.4				
Los Angeles Aqueduct near San Fernando, Station 70	9-22-65	7.4 ± 1.4				
	9-30-65	8.7 ± 1.3				

[a] Picocuries per liter. Deviations reported at the 95 percent confidence level.

RADIOASSAYS OF SURFACE WATER

LAHONTAN DRAINAGE PROVINCE (W)

Station	Sta. No.	Date	Picocuries per Liter[a]			
			Dissolved Alpha	Solid Alpha	Dissolved Beta	Solid Beta
Water Year 1964 - 1965		1965				
Mojave River near Victorville	67	5- 5	1.43 ± 2.48	1.38 ± 1.10	6.03 ± 11.34	- 1.33 ± 8.55
		9- 21	1.57 ± 2.98	1.07 ± 1.04	20.86 ± 25.89	11.94 ± 9.49
Mojave River at the Forks	67a	5- 5	1.18 ± 1.43	0.55 ± 0.89	3.11 ± 10.00	- 9.85 ± 7.63
		9- 21	2.40 ± 2.69	0.00 ± 0.00	0.00 ± 0.00	0.24 ± 8.05

a. Deviations reported at the 95 percent confidence level.

TABLE D-4

RADIOASSAYS OF SURFACE WATER

COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

Station	Sta. No.	Date	Picocuries per Liter[a]			
			Dissolved Alpha	Solid Alpha	Dissolved Beta	Solid Beta
Water Year 1964 - 1965		1965				
Colorado River near Topock, Arizona	54	5-17	0.88 ± 3.01	0.39 ± 0.90	9.17 ± 12.00	- 1.58 ± 9.28
		9-16	0.84 ± 6.69	0.11 ± 0.86	7.33 ± 15.90	2.74 ± 7.53
Colorado River below Parker Dam	55	5-18	7.81 ± 8.24	0.59 ± 0.56	41.32 ± 51.88	1.20 ± 8.27
		9-14	0.49 ± 2.18	0.00 ± 0.00	0.00 ± 0.00	0.60 ± 8.04
Colorado River at Yuma, Arizona	56	5-11	3.23 ± 3.58	0.20 ± 0.56	0.53 ± 12.58	7.28 ± 8.73
		9- 8	0.00 ± 0.00	3.69 ± 1.74	13.87 ± 29.89	82.60 ± 10.62
All American Canal at Pilot Knob	56a	5-11	0.30 ± 3.14	0.12 ± 0.81	- 3.30 ± 14.05	2.39 ± 8.03
		9- 7	0.43 ± 3.14	3.72 ± 8.37	21.58 ± 13.39	0.15 ± 0.65
Colorado River below Morelos Dam	56b	5-11	1.54 ± 5.54	0.20 ± 0.81	27.65 ± 56.48	2.26 ± 8.07
		9- 7	2.44 ± 2.85	0.34 ± 0.94	0.69 ± 15.05	2.46 ± 8.14
Colorado River near Blythe	56c	5-18	6.94 ± 7.33	-0.31 ± 0.46	53.52 ± 51.37	- 3.80 ± 7.84
		9-13	3.74 ± 4.14	0.22 ± 8.57	0.00 ± 0.00	10.30 ± 13.52
Colorado River at Colorado River Aqueduct Intake	56d	See	Page 182 for	Radiological Assay		
New River at International Boundary	57	5-11	3.95 ± 5.24	0.98 ± 0.95	29.22 ± 14.66	7.21 ± 8.87
		9- 7	0.00 ± 0.00	0.60 ± 1.01	113.25 ± 65.90	13.11 ± 8.48
New River near Westmorland	58	5-10	1.83 ± 3.78	0.57 ± 1.10	1.96 ± 11.70	6.32 ± 10.97
		9- 6	4.31 ± 21.83	1.07 ± 1.07	25.78 ± 3.68	9.03 ± 9.48
Alamo River at International Boundary	59	5-11	2.86 ± 12.68	0.20 ± 0.81	-44.78 ± 68.01	1.86 ± 8.20
		9- 7	0.74 ± 1.82	1.32 ± 1.05	0.00 ± 0.00	17.38 ± 9.20

RADIOASSAYS OF SURFACE WATER
COLORADO RIVER BASIN DRAINAGE PROVINCE (X)
(continued)

Station	Sta. No.	Date	Picocuries per Liter[a]			
			Dissolved Alpha	Solid Alpha	Dissolved Beta	Solid Beta
Water Year 1964 - 1965		1965				
Alamo River near Calipatria	60	5-10	1.09 ± 3.58	0.92 ± 1.11	- 13.50 ± 13.79	9.58 ± 9.16
		9- 6	0.00 ± 0.00	1.38 ± 1.27	16.93 ± 33.08	11.05 ± 8.71
Whitewater River near Whitewater	68	5-10	1.86 ± 4.05	- 0.12 ± 1.74	22.81 ± 50.71	3.42 ± 7.94
		9- 6	2.77 ± 2.35	0.00 ± 0.00	3.56 ± 10.84	6.21 ± 9.55
Salton Sea at Salton Sea State Park	68a	5-10	0.00	0.24 ± 1.74	- 0.41 ± 14.35	2.85 ± 9.54
		9- 6	153.85 ± 205.06	0.15 ± 0.86	152.34 ± 21.13	5.15 ± 8.11
Whitewater River near Mecca	68b	5- 8	1.66 ± 1.64	12.16 ± 8.88	12.35 ± 10.31	15.00 ± 48.51
		9- 6	33.74 ± 18.01	0.57 ± 0.94	0.00 ± 0.00	0.00 ± 0.00

a. Deviations reported at the 95 percent confidence level.

TABLE D-4

RADIOASSAYS OF SURFACE WATER

COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

(continued)

Source and Sampling Point	Date Sampled[b]	Date of Analysis	Picocuries per liter[a]	
			Gross Alpha	Gross Beta
Colorado River at Colorado River Aqueduct Intake, Station 56d	10- 6-64	10-22-64	7.2 ± 0.7	12.4 ± 2.6
	11- 3-64	11-11-64	5.0 ± 0.7	12.3 ± 2.6
	12- 1-64	12-11-64	4.0 ± 0.7	13.5 ± 2.6
	1- 5-65	1-22-65	3.5 ± 0.7	13.1 ± 2.6
	2-23-65	3-11-65	5.6 ± 0.7	28.1 ± 2.6
	4- 6-65	4-14-65	5.0 ± 0.7	21.3 ± 2.6
	5-27-65	6-10-65	4.4 ± 0.7	19.1 ± 2.6
	6-15-65	6-26-65	4.7 ± 0.7	17.6 ± 2.6
	7- 6-65	7-15-65	6.4 ± 0.7	14.7 ± 2.6
	8- 3-65	8-13-65	5.2 ± 0.7	18.0 ± 2.6
	9- 8-65	9-23-65	3.9 ± 0.7	18.9 ± 2.6

a. Deviations reported at the 90 percent confidence level.
b. Sampled and analyzed by The Metropolitan Water District of Southern California.

SANTA ANA DRAINAGE PROVINCE (Y)

Station	Sta. No.	Date	Picocuries per Liter[a]			
			Dissolved Alpha	Solid Alpha	Dissolved Beta	Solid Beta
Water Year 1964 - 1965		1965				
Warm Creek at Colton	50b	5- 6	0.00	0.47 ± 0.89	19.55 ± 12.55	- 1.94 ± 8.14
		9-22	1.06 ± 2.90	0.00 ± 0.00	6.17 ± 11.92	6.60 ± 8.11
Santa Ana River near Arlington	51	5- 6	6.15 ± 4.96	0.67 ± 1.26	- 5.96 ± 14.60	- 3.03 ± 9.09
		9-22	15.67 ± 10.94	0.19 ± 0.94	39.91 ± 32.32	2.77 ± 8.11
Santa Ana River below Prado Dam	51a	5- 6	8.48 ± 6.83	1.18 ± 1.11	- 2.45 ± 12.72	1.94 ± 10.10
		9-22	6.33 ± 4.70	0.26 ± 0.63	21.74 ± 12.70	33.78 ± 10.07
Santa Ana River near Mentone	51b	5- 5	2.72 ± 1.91	0.75 ± 0.97	2.55 ± 11.74	4.43 ± 8.32
		9-21	4.92 ± 4.74	1.33 ± 1.10	4.45 ± 10.58	0.00 ± 0.00
Santa Ana River near Norco	51e	5- 6	9.60 ± 6.55	1.22 ± 1.10	- 2.78 ± 12.95	- 7.24 ± 9.33
		9-22	0.00 ± 0.00	1.36 ± 3.70	6.18 ± 12.64	11.96 ± 11.47
Santa Ana River at Colton	51f	5- 6	0.97 ± 2.83	0.63 ± 0.89	5.73 ± 12.73	- 1.48 ± 9.63
		9-22	0.00 ± 0.00	0.00 ± 0.00	15.31 ± 12.33	9.87 ± 8.27
San Timoteo Creek near Loma Linda	51g	5- 6	2.03 ± 3.53	0.51 ± 0.89	16.59 ± 13.22	- 2.78 ± 8.30
		9-22	1.47 ± 2.47	0.00 ± 0.00	14.61 ± 13.74	7.21 ± 7.96
Chino Creek near Chino	86	5- 6	1.96 ± 4.47	0.63 ± 0.89	45.14 ± 13.88	0.54 ± 9.52
		9-22	0.48 ± 2.45	0.79 ± 1.14	15.78 ± 12.09	2.48 ± 8.15
Lake Elsinore at North Shore	89	5-14	4.92 ± 4.78	0.00	22.80 ± 64.75	9.62 ± 8.77
		9-10	42.75 ± 5.49	1.10 ± 1.07	23.04 ± 36.87	11.65 ± 8.12

a. Deviations reported at the 95 percent confidence level.

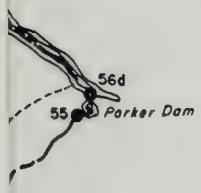
TABLE D-4

RADIOASSAYS OF SURFACE WATER

SAN DIEGO DRAINAGE PROVINCE (Z)

Station	Sta. No.	Date	Picocuries per Liter[a]			
			Dissolved Alpha	Solid Alpha	Dissolved Beta	Solid Beta
Water Year 1964 - 1965		1965				
Santa Margarita River near Fallbrook	51c	5-14	4.54 ± 6.79	-0.31 ± 0.56	13.96 ± 50.78	2.25 ± 7.93
		9-10	3.66 ± 5.29	0.52 ± 0.74	10.30 ± 13.52	0.00 ± 0.00
San Luis Rey River near Pala	62	5-14	Dry			
		9-10	Dry			
Escondido Creek near Harmony Grove	63	5-14	3.80 ± 4.98	0.59 ± 0.98	1.44 ± 12.54	1.51 ± 8.00
		9- 9	4.69 ± 8.58	2.87 ± 1.54	39.60 ± 15.83	5.55 ± 8.89
San Dieguito River near San Pasqual Valley	64	5-14	Dry			
		9- 9	Dry			
San Diego River at Old Mission Dam	65	5-13	6.67 ± 10.72	0.71 ± 1.05	13.59 ± 14.51	2.76 ± 10.07
		9-10	0.00 ± 0.00	2.40 ± 1.39	2.30 ± 12.56	22.30 ± 9.66
Spring Valley Creek near La Pressa	65b	5-13	5.31 ± 8.37	0.47 ± 0.89	- 6.22 ± 50.83	3.74 ± 8.01
		9- 8	32.00 ± 57.62	2.80 ± 1.57	16.80 ± 74.72	10.28 ± 8.61
San Diego River near Mission Gorge Road	65c	5-12	7.31 ± 9.45	1.18 ± 1.18	16.47 ± 63.18	- 1.90 ± 7.91
		9-10	Dry			
Tia Juana River at International Boundary	66	5-13	Dry			
		9- 9	Dry			

a. Deviations reported at the 95 percent confidence level.



LEGEND

68b ● SURFACE WATER SAMPLING STATION

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
SOUTHERN DISTRICT

HYDROLOGIC DATA, 1965

LOCATION OF SURFACE WATER QUALITY MONITORING PROGRAM STATIONS, 1964-65

SCALE OF MILES

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1966

TABLE D-4

RADIOASSAYS OF SURFACE WATER

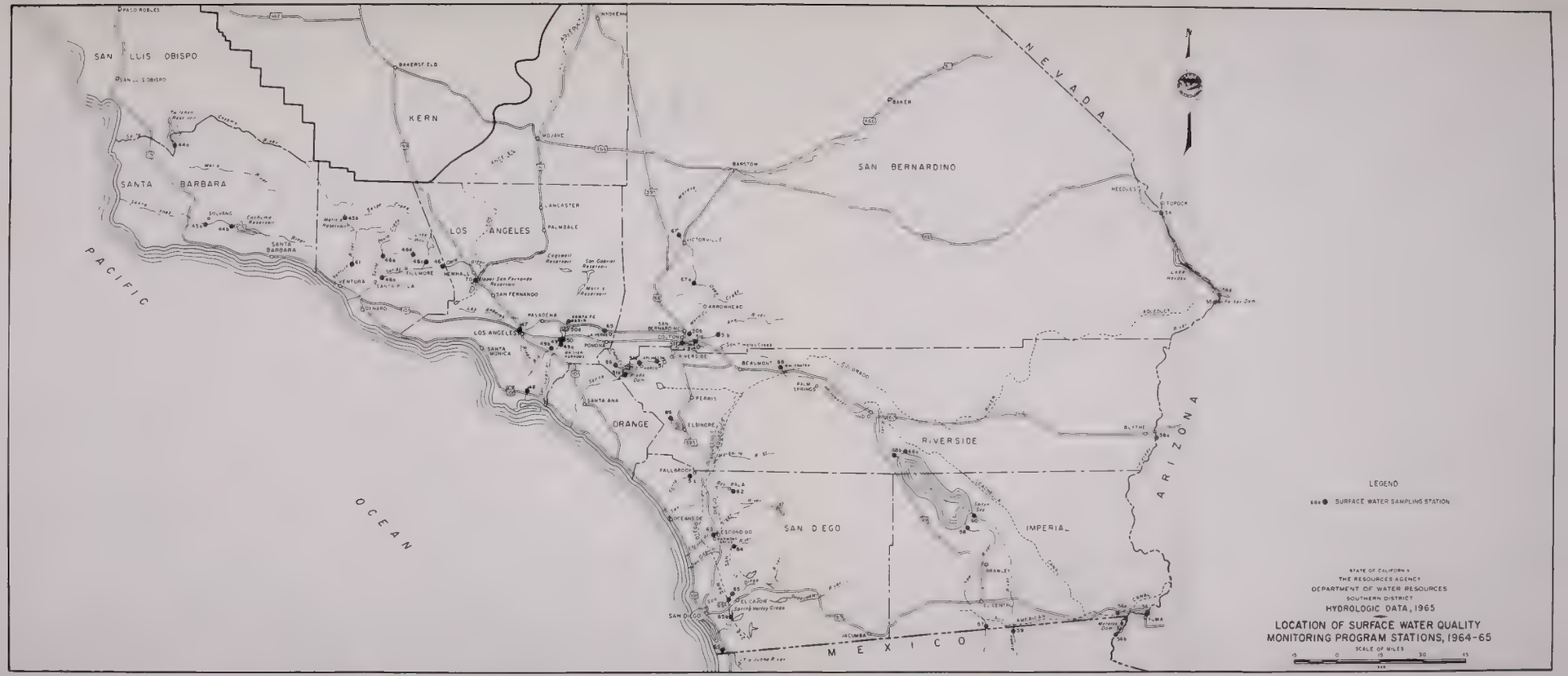
SAN DIEGO DRAINAGE PROVINCE (Z)

Station	Sta. No.	Date	Picocuries per Liter[a]			
			Dissolved Alpha	Solid Alpha	Dissolved Beta	Solid Beta
Water Year 1964 - 1965		1965				
Santa Margarita River near Fallbrook	51c	5-14	4.54 ± 6.79	-0.31 ± 0.56	13.96 ± 50.78	2.25 ± 7.93
		9-10	3.66 ± 5.29	0.52 ± 0.74	10.30 ± 13.52	0.00 ± 0.00
San Luis Rey River near Pala	62	5-14	Dry			
		9-10	Dry			
Escondido Creek near Harmony Grove	63	5-14	3.80 ± 4.98	0.59 ± 0.98	1.44 ± 12.54	1.51 ± 8.00
		9- 9	4.69 ± 8.58	2.87 ± 1.54	39.60 ± 15.83	5.55 ± 8.89
San Dieguito River near San Pasqual Valley	64	5-14	Dry			
		9- 9	Dry			
San Diego River at Old Mission Dam	65	5-13	6.67 ± 10.72	0.71 ± 1.05	13.59 ± 14.51	2.76 ± 10.07
		9-10	0.00 ± 0.00	2.40 ± 1.39	2.30 ± 12.56	22.30 ± 9.66
Spring Valley Creek near La Pressa	65b	5-13	5.31 ± 8.37	0.47 ± 0.89	- 6.22 ± 50.83	3.74 ± 8.01
		9- 8	32.00 ± 57.62	2.80 ± 1.57	16.80 ± 74.72	10.28 ± 8.61
San Diego River near Mission Gorge Road	65c	5-12	7.31 ± 9.45	1.18 ± 1.18	16.47 ± 63.18	- 1.90 ± 7.91
		9-10	Dry			
Tia Juana River at International Boundary	66	5-13	Dry			
		9- 9	Dry			

a. Deviations reported at the 95 percent confidence level.

SURFACE WATER SAMPLING STATIONS
(For additional information see Table D-1, page 11)

Sta. No.	
44a	Cuyama River near Garey
44b	Santa Ynez River at Cachuma Reservoir
45a	Santa Ynez River near Solvang
45b	Matilija Creek above Dam
46	Santa Clara River at Los Angeles-Ventura county Line
46a	Santa Clara River near Santa Paula
46c	Piru Creek near Piru
46d	Sespe Creek near Fillmore
46e	Santa Paula Creek near Santa Paula
47	Los Angeles River at Figueroa Street
48	Los Angeles River at Pacific Coast Highway
49	Rio Hondo at Whittier Narrows
49a	Mission Creek at Whittier Narrows
49b	Rio Hondo above Spreading Grounds
50	San Gabriel River at Whittier Narrows
50b	Warm Creek at Colton
50d	San Gabriel River at Azusa Powerhouse
51	Santa Ana River near Arlington
51a	Santa Ana River below Prado Dam
51b	Santa Ana River near Mentone
51c	Santa Margarita River near Fallbrook
51e	Santa Ana River near Norco
51f	Santa Ana River at Colton
51g	San Timoteo Creek near Loma Linda
54	Colorado River near Topock, Arizona
55	Colorado River below Parker Dam
56	Colorado River at Yuma, Arizona
56a	All American Canal near Pilot Knob
56b	Colorado River below Morelos Dam
56c	Colorado River near Blythe
56d	Colorado River at Colorado River Aqueduct Intake
57	New River at International Boundary
58	New River near Westmorland
59	Alamo River at International Boundary
60	Alamo River near Calipatria
61	Ventura River near Ventura
62	San Luis Rey River near Pala
63	Escondido Creek near Harmony Grove
64	San Dieguito River below San Pasqual Valley
65	San Diego River at Old Mission Dam
65b	Spring Valley Creek near La Presse
65c	San Diego River near Mission Gorge Road
66	Tia Juana River at International Boundary
67	Mojave River near Victorville
67a	Mojave River at The Forks
68	Whitewater River near Whitewater
68a	Salton Sea at Salton Sea State Park
68b	Whitewater River near Mecca
69	Colorado River Aqueduct at La Verne
70	Los Angeles Aqueduct near San Fernando
86	Chino Creek near Chino
89	Lake Elsinore at State Park



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